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Drug & Cosmetic INDUSTRY

November 1942

1917 or 1942?

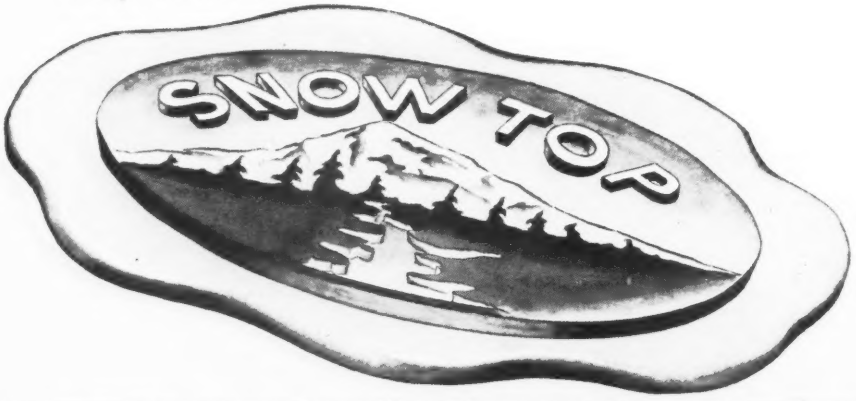
Must our boys risk infection to camouflage?

SNOW TOP PRECIPITATED CHALK

Tested and Approved

SNOW-TOP Precipitated Chalk is triple-tested. **First** by our chemists, no less than ten times as it progresses from the raw to the finished stage. **Second**, by our customers who find its unvarying uniformity a great aid in their manufacturing procedure. **And third**, by the American Dental Association who have included SNOW TOP Precipitated Chalk among the products meeting the approval of the Council on Dental Therapeutics.

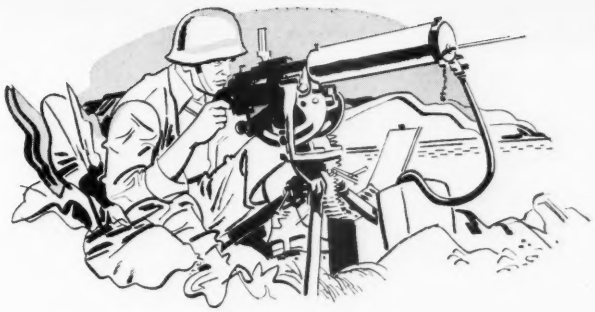
We will gladly send you a sample of any of the five grades of SNOW TOP for you to run your tests on this superior American Precipitated Chalk.



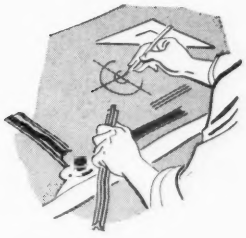
INDUSTRIAL CHEMICAL SALES

DIVISION WEST VIRGINIA PULP & PAPER COMPANY

230 PARK AVENUE, NEW YORK CITY
35 E. WACKER DRIVE, CHICAGO, ILLINOIS
748 PUBLIC LEDGER BLDG., PHILADELPHIA, PA.
844 LEADER BLDG., CLEVELAND, OHIO.



The future is what we're fighting for, isn't it?



Every reader of this advertisement believes, somehow, that the future is worth the fight. Production records say so. Your personal sacrifices say so. Your crowded hours say so.

We read your hearts as we read our own.

But what about this future, anyway? Are we going to accept it as it is served up to us, or are we folks in industry going to do a job of pre-fabrication on it?

We can, you know.

We *can* do some Imagineering, here and now. We *can* decide where we go from here. We *can* slip an eighth day of thinking time into our crowded seven-day week, if we will.

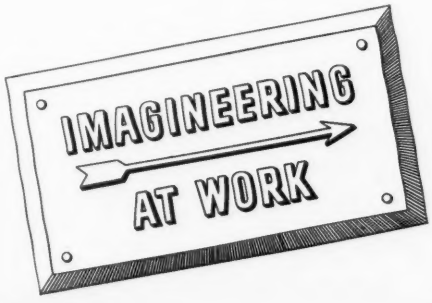
We can build new models, in our minds at least. We can take the facts and the promise of the new materials and methods we are learning about in the war, and dream them into the new products and improved services that will make new jobs.

We can even provide the wherewithal which will prime the future. Every War Bond we buy does that.

The future is more than a hope. It is a duty.

Getting together on future ideas is putting Imagineering into practice.

Might you and we do just that, for the sake of the boys who are fighting to give us all a future? ALUMINUM COMPANY OF AMERICA, 1913 Gulf Bldg., Pittsburgh, Pa.



ALCOA ALUMINUM

Drug & Cosmetic INDUSTRY

NOVEMBER 1942

CONTENTS

KEEPING POSTED	513
COSMETIC LIMITATION	519
TALC RESTRICTION	520
COSMETIC CAMOUFLAGE	522
PLASTIC SUPPLIES	523
SEASICKNESS	527
FOOT POWDERS	530
OIL CASSIA	532
MERCHANDISING NEWS AND PACKAGING NOTES	537
PACKAGES OF THE MONTH	541, 543
NEWS	547
F. T. C. ACTIVITIES	557
INDUSTRY'S BOOKS	563
PRODUCTION FORUM	567
COMPOUNDER'S CORNER	579
PERFUMERS' SHELF	584
ADVANCING THERAPY	587
READERS' QUESTIONS	595
PURCHASING DEPARTMENT	599

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KEEPING POSTED

FTC Attacks Bromides

ACTION has been taken by the Federal Trade Commission against drug preparations containing acetanilid and bromides. It will be recalled that the Food and Drug Administration took action against this class of preparations some time ago under the provisions of the then new Food, Drug, and Cosmetic Act. The result of the FDA action was the lowering of the amount of acetanilid and bromides in a single dose and the limiting of the number of doses to two in twenty-four hours spaced three hours apart.

The FTC has issued complaints against Emerson's Bromo-Seltzer, BC Headache Powders, Stanback Headache Powders, Chelf Chemical Company's C. C. Compound, or 4 C's, and Capudine Chemical Company's Hick's Liquid Capudine. Bromo-Seltzer contains acetanilid and sodium bromide, BC, Stanback, and C. C. Compound contain acetanilid and potassium bromide, and Hick's Capydine contains antipyrine and potassium bromide. All of these preparations apparently conform with the requirements of the FDA in that not more than two doses should be taken in twenty-four hours, spaced three hours apart.

However, the FTC claims that the advertisements for all these preparations are false and misleading in that they fail to reveal that continued use of the preparations in quantities exceeding the recommended doses, or with a greater frequency than that recommended, may cause skin eruption, mental derangement and serious blood disturbances, and their administration to children may be dangerous and injurious to health. Such failure, charges the FTC, may lead the public to believe that the preparations may be taken in such amounts and with such frequency as may seem necessary to accomplish the represented and desired results.

While we do not know what is back of this, we can see no reason why these cases cannot be settled by the advertisements containing the statement "Caution, Use Only as Directed," since the proper directions appear on the labels in accordance with the FDA requirements.

U. S. P. XII Delays Changes

THE effective date of the U. S. P. XII new packaging requirements is being postponed from November 1, 1942 to June 1, 1943. This is because of the relatively short time between the publication of U. S. P. XII and its effective date, and also because of the many difficulties brought about by the war and the desire to avoid the loss of valuable materials and stocks of labels, bottles, and finished packages. The most drastic changes are made in the new standards for injections.

U. S. P. XII Changes Formula

DUE to the shortage of glycerine, the U. S. P. XII formula for Elixir of Phenobarbital is being revised. The formula issued in U. S. P. XII was believed to be an improvement over the formula contained in N. F. VI from which the preparation was taken. Now however, for the duration of the war, the U. S. P. XII preparation will be the same as that contained in N. F. VI.

Alcohol Tax Drawback

WHILE alcohol taxation is increased by two dollars a proof gallon to a total of six dollars a proof gallon in the new tax bill which became effective November 1, the medicinal and flavor manufacturers finally won their fight against an increase in the tax on alcohol for non-beverage use. Under the provisions of the bill, medicinal and flavor manufacturers are able to obtain a drawback of $3.75 per gallon by buying an occupational license tax varying from $25 to $100 annually, depending on the amount of alcohol used.

Pamphlets and Labeling

THE U. S. Supreme Court refused to review the case of the Nue-Ovo Company and therefore the FDA case as sustained by the Circuit Court of Appeals stands. This was a case in which the manufacturer shipped the goods and pamphlets separately but they both arrived at their destination at the same time. The FDA contended that the pamphlets were part of the labeling of the product and that the statements in the products constituted misbranding of the product. The manufacturer maintained that the pamphlets were collateral advertising and therefore were under the jurisdiction of the Federal Trade Commission. The U. S. District Court for the Western District of the State of Washington ruled in favor of the manufacturer, but the Ninth Circuit Court reversed this decision and ruled in favor of the FDA.

Casualty Markers

HARKING back to our consideration of the contribution of the cosmetic industry to the war effort, we recently ran into a manufacturer who is producing at the rate of 5,000 a week, marking pencils for the marking of medical information on casualties. We remarked last week that lipsticks were used for this purpose. While this was true at one time and is still true of Red Cross First Aiders, the Navy is using these pencils that this manufacturer has developed. The pencils, which are being made in two colors—red and blue—are paper covered, the paper being torn off as the pencil is used. The marking can be removed only by scrubbing with

soap and water or by the use of any of the common alcohols. The pencils had to be formulated so that one could write with them no matter what the type of the skin or the condition of the skin. Therefore, these pencils will write whether the skin be dry or oily, covered with dirt or grime, or in any other condition likely to be encountered.

Women Doctors for Plants

WOMEN doctors as chiefs of factory health departments is being urged by Dr. Victor G. Heiser, consultant to the National Association of Manufacturers Committee on Healthful Working Conditions. Dr. Heiser points out that industrial medicine is a highly specialized field for which practitioners should be specially trained. He points out that since the Army and Navy have made serious drains on medical ranks, industrial medicine should be handled by trained women doctors and doctors physically inelligible for military service. With a few exceptions, states Dr. Heiser, there are practically no women doctors in the industrial field today, but management must open its doors to them.

Manpower and Health

WAR Manpower Commissioner states that 80,000,000 working days can be saved this year if workers keep fit. It is estimated that about 24,000,000 man-hours per month are lost through minor illnesses preventable by a better level of nutrition.

Lanolin Price Ceiling

CEILING prices have been set on lanolin and some other oils and fats by OPA. U. S. P. Lanolin Anhydrous, cosmetic grade is priced at 35 cents per pound; U. S. P. Lanolin, pharmaceutical grade at 33 cents; and U. S. P. lanolin, hydrous at 32 cents. Corn Oil, basis 95 per cent T. F. A. is priced at 7 cents per pound delivered in tank cars for Midwest, and 7¼ cents for East; Peanut Oil, basis 95 per cent T. F. A. is 8 cents tank cars delivered Midwest, and 8¼ cents East; Coconut Oil, 98 per cent saponifiable is 10½ cents tank cars delivered; Tallow, East is 12 cents per pound delivered in tank cars, and 12¾ cents in drums delivered, Texas and Oklahoma is 12½ cents and 13¼ cents, West of Rockies is 13 cents and 13¾ cents. Coconut, undistilled, No. 2 grade is 13⅜ cents delivered tank cars; Coconut, distilled, No. 1 grade is 15½ cents delivered drums; Coconut, triple distilled, special light color is 16¾ cents drums. Corn Oil is 10⅛ cents tank cars, and 10⅞ drums. Peanut Oil is 11¼ cents tank cars, and 12 drums.

No Steel for These

THE Iron and Steel Conservation Order M-126 has been amended and brought up-to-date. At the risk of repetition of some of the items, we list the following items in this field which can no longer be made from iron or steel: Atomizers, perfume, boudoir; boxes and trays for toilet sets; cans or containers for toilet water; dispensers for hand lotions and soaps; lipstick holders; barber and beauty shop supplies, machines, and equipment; containers for cosmetics and toiletries; closures for cosmetics and toiletries.

Advertising and Taxes

AN OFFICIAL statement on advertising expenditures and their deductibility as expenses has been issued by Commissioner Guy T. Helvering of the Bureau of Internal Revenue of the Treasury Department. The statement follows:

"To be deductible, advertising expenditures must be ordinary and necessary and bear a reasonable relation to the business activities in which the enterprise is engaged. The Bureau realizes that it may be necessary for taxpayers now engaged in war production to maintain, through advertising, their trade names and the knowledge of the quality of their products and good will built up over past years, so that when they return to peacetime production their names and the quality of their products will be known to the public.

"In determining whether such expenditures are allowable, cognizance will be taken of (1) the size of the business, (2) the amount of prior advertising budgets, (3) the public patronage reasonably to be expected in the future, (4) the increased cost of the elements entering into the total of advertising expenditures, (5) the introduction of new processes and added lines, and (6) buying habits necessitated by war restrictions, by priorities, and by the unavailability of many of the raw materials formerly fabricated into advertised products.

"Reasonable expenses incurred by companies in advertising and advertising technique to speed the war effort among their own employees, and to cut down accidents and unnecessary absences and inefficiency, will be allowed as deductions. Also reasonable expenditures for advertisements including the promotion of Government objectives in war time, such as conservation, salvage, or the sale of War Bonds, which are signed by the advertiser, will be deductible provided they are reasonable and are not made in an attempt to avoid proper taxation.

"It is the statutory responsibility of the Bureau to determine and collect Federal taxes, among which are the income and excess profits taxes, and to prevent abuses and attempts to avoid the high tax rates to which business will be subject under the proposed tax bill now before Congress.

"No definite rule for determining what is reasonable in the case of expenditures for advertising can be laid down in advance so as to fit all situations and all classes of taxpayers. In determining whether the amounts are reasonable it is necessary to take into consideration all the facts and circumstances in each particular case.

"The Bureau will consider applications for individual rulings. It is, however, busy with an unusual volume of work, and it is believed that if taxpayers will keep in mind the foregoing general rules, individual rulings will not be necessary except under most unusual circumstances."

N. F. VII Makes Change

JUNIPER Tar is being made official as a replacement for Rectified Oil of Birch Tar in the preparation of Compound Ointment of Resorcinol, N. F. VII. This is the first revision of the new N. F. VII. The formula is changed to replace the Birch Tar Oil with two grams of Juniper tar, and to increase the amount of petrolatum from 25 grams to 29 grams.

Scales Now Allocated

SCALES, balances, and weights are now controlled by Limitation Order L-190 issued October 10 by WPB. The order sets up four classes of scales as follows:

Class 1: Commercial scales for use in the retail trade, baby weighing scales for domestic use, and scales for household use including bathroom scales and kitchen scales.

Class 2: Baby scales for clinical use, person weighing scales for clinical use, and dietetic scales graduated in the metric system.

Class 3: Mailing and parcel post scales.

Class 4: All other scales.

Sixty days after the date of the order no materials can be put in process for assembly of class 1 scales, and during the sixty days no parts for class 1 scales may be fabricated if these parts together with similar parts for class 1 scales in process or in inventory on the date of the order would constitute more than a supply equal to the number of such parts required for the assembly of one-twelfth of the class 1 scales billed during 1941. Ninety days after the date of the order no new class 1 scales may be assembled, and class 1 scales may not be assembled during the ninety days unless ninety per cent by weight of the parts had been fabricated prior to the date of the order to such an extent that they could be used for no other class of scale.

Starting October 1, 1942, no person may fabricate or assemble in any calendar quarter a total number of class 2 and class 3 scales in excess of one-sixteenth of the number billed by him during the calendar year 1941. No manufacturer shall increase his inventory of class 4 scales to exceed one-twelfth of the number of such scales billed during 1941.

No person shall sell, lease, or lend any new class 2, 3, or 4 scales (other than dietetic scales graduated in the metric system) except to fill orders rated A-9 or higher. Dietetic scales graduated in the metric system can not be sold, loaned, or leased except on a physician's prescription.

Sterling Drug Now

STERLING Products as a company name no longer exists; the name of the company is now Sterling Drug Inc. There appear two sound reasons behind this change. One is that tax legislation might force the parent company to change its position of a holding company to that of an operating company. Since, if that occurs, it will be necessary for the name of the parent company to appear on all products, the new name retains the Sterling identification, and also more adequately describes the nature of the company. Furthermore, it has been determined that the name Sterling Products is similar to the names of other corporations already organized or licensed to do business in a number of States, and therefore it would be impossible for the drug company to obtain licenses to do business under that name in several States. The company will now be able to simplify its corporate structure and operate the Bayer Company, Chas. H. Phillips Chemical Company, and various other subsidiaries as divisions of Sterling Drug Inc.

Hop A Freight

WHAT with the gas shortage and the consequent demand for passenger train accommodations, traveling salesmen in Canada are solving the problem by hopping freights. The practice of permitting traveling in freight trains when other accommodations are short has been allowed for several years. Now that gasoline is so short, salesmen merely hop a freight and ride in the caboose.

Stopping Cross-Hauling

ELIMINATION of cross-hauling of chemicals is about to be undertaken by the WPB. Steps have already been taken to reduce the cross-hauling of chlorine. Prevention of this practice in the case of chlorine is of prime importance because chlorine is shipped in tank cars, and tank cars are extremely short. So consumers of chemicals might soon find that their supplies are coming from a manufacturer from whom they did not buy, but who is located at a point much closer to the plant of the buyer.

Military Minds

THE war is causing people to think in terms of the military. So McKesson & Robbins in making the statement that common colds cost this nation $2,300,000 annually in direct expense, lost time and wages, states that this national loss equals the cost of 132 warships, including eight battleships, four aircraft carriers, 20 cruisers, 50 destroyers, and 50 submarines.

New FDA Titles

CHANGES have occurred in the titles of the officials of the Food and Drug Administration. Walter G. Campbell, who has been Commissioner of Foods and Drugs since the transfer of the FDA to the Social Security Administration, now has C. W. Crawford as Assistant Commissioner, and Dr. P. B. Dunbar as Associate Commissioner. The duties of these men have not been changed, they have only been given new titles. Ruth deForest Lamb, who became associated with the FDA during the Tugwell days and who was the author of "The American Chamber of Horrors" as well as many caustic articles about the products and the manufacturers in this industry, has resigned.

OPA Chemical Action

IN ORDER to strengthen enforcement of its orders controlling prices of certain chemicals and other raw materials, the OPA has amended the orders affecting prices of acetic acid, acetylsalicylic acid, carbon tetrachloride, cresylic acid imported, formaldehyde, glycerine, paraffin wax, pine oil, salicylic acid, wood alcohol, and some others by adding the following paragraph:

"Persons violating any provision of this Revised Price Schedule No. ..... are subject to criminal penalties, civil enforcement actions, license suspension proceedings, and suits for treble damages provided for by the Emergency Price Control Act of 1942."

Another paragraph is added to these orders indicating that provisions of Supplementary Order No. 11, licensing distributors of chemicals and drugs, are applicable to every distributor of the above products.

Maywood Stock Taken Over

MAYWOOD Chemical Company $10 par value capital stock to the extent of 35,785—29/40ths shares has been taken over by the Alien Property Custodian because of enemy ownership. The shares siezed consisted of 3,464 1/8 shares of voting common stock, which represents 23.09 per cent of the outstanding shares of this class; 4,040½ shares of class A non-voting 8 per cent cumulative preferred stock, which represents 32.8 per cent of the outstanding shares of this class; and 28,281 1/10 shares of class D non-voting preferred stock, which represents 29.28 per cent of the outstanding shares of this class. Three residents of Germany were listed as the owners of the stock.

Cosmetics in Canada

RESTRICTIONS on the manufacture of cosmetics in Canada affect products as to colors, odors, sizes, and number of units. Included in the order are nail polishes, rouges, lipsticks, face powders, hand and face lotions, hair dressings, tonics, and oils, and brilliantines.

The size of the Canadian cosmetic industry is quite large, reaching a total of $8,305,916 in 1940, compared with $6,918,573 in 1939. This total is made up of $1,408,863 for products containing not less than five per cent of alcohol manufactured in 1940, against $1,024,109 in 1939; Creams $1,181,855 in 1940, against $885,888 in 1939; brilliantines $79,346 in 1940, against $77,618 in 1939; face powders $812,491 in 1940, against $617,111 in 1939; talcum powders $266,170 in 1940, against $247,485 in 1939; sachet powders $39,159 in 1940, against $10,614 in 1939; lipsticks $303,135 in 1940, against $259,436 in 1939; compact powders and rouges $239,120 in 1940, against $234,519 in 1939; shampoo powders and liquids $118,034 in 1940, against $99,454 in 1939; bath salts $111,438 in 1940, against $111,305 in 1939; deodorants $208,510 in 1940, against $202,279 in 1939; lotions and toilet waters $51,449 in 1940, against $25,687 in 1939; manicure preparations $416,860 in 1940, against $428,126 in 1939; tooth pastes and powders $872,897 in 1940, against $829,530 in 1939; wave set and permanent wave solutions $130,365 in 1940, against $81,649 in 1939; all other cosmetics $623,696 in 1940, against $457,132 in 1939; all other products $1,442,528 in 1940, against $1,326,631 in 1939.

The value of materials used in the manufacture of cosmetics in Canada in 1940 was $3,112,823 in 1940, against $2,792,754 in 1939. Of these amounts $1,924,034, or 61 per cent, was spent on containers and packaging materials in 1940, against $1,746,534, or about 60 per cent spent for containers and packaging materials in 1939.

Tin Tube Recovery Effective

SINCE the return tin tube order went into effect on April 1, 1942, up to September 30, 1942, 1,168,000 pounds of tubes, representing a total of 513,920 pounds of tin were received by the Tin Salvage Institute. Of this amount of tin, 260,000 pounds have already been made available to war industries, and in addition, substantial amounts of aluminum and lead have been reclaimed. At the present time the rate of reclamation is 160,000 pounds per month. During June and July the weekly receipts of tubes averaged 60,000 pounds, but this stepped up to an average of 80,000 pounds per week during September and is expected to increase further. Some of the reclaimed tin is "high tin" alloy of ninety-four per cent or more tin, and some is "low tin" alloy of twenty per cent or less of tin. Either is valuable for war purposes.

The average large tooth paste tube contains about one-half ounce of tin. Sixty of these tubes provide tin enough to solder all the electrical connections in a fighter plane, and 240 pounds will do the same job for a Flying Fortress. Thirty to fifty pounds are sufficient for the heavy bearings of a tank.

WPB Section Moves

THE entire Chemicals Branch of the WPB, including the Drug and Cosmetics Section of the Chemicals Branch, has been moved from the Railroad Retirement Building to the Municipal Building, 300 Indiana Avenue, Washington. The Drug and Cosmetics Section is located in room 4153 on the south side of the building.

Razors and Blades Cut

RAZORS and razor blade production are now under tighter restrictions. The WPB has ordered that from November 3, no safety razors shall be made for other than the Army, Navy, Government, and Lend-Lease. From November 3 to December 31, production of straight razors is limited to eight and one-half of the amount produced during 1940, and on January 1, 1943, production of straight razors is to be completely stopped. Razor blade production for civilian use is limited to twenty-one per cent of the amount produced during 1940 including the amount produced for the Army and Navy; or it is limited to fifteen and one-half per cent of the amount produced during 1941 including the amount produced for the Army and Navy. The manufacturer can choose either of these methods and use the higher one. The peculiar part of this order is that the civilian production is based on the civilian and armed forces output for either 1940 or 1941. Production for the armed forces are provided for in the order and for this purpose manufacturers are required to make monthly reports stating their proposed schedule of manufacture and shipping for three months ahead.

Paper Limitation

PAPER has been limited by WPB, certain manufacturers being ordered to discontinue. While the order indicates that writing paper and book paper will be primarily affected, the paper used in preparing labels, circulars, and other packaging requirements might also be reduced in quantity as time goes on. Such a development would result in still greater difficulty in obtaining packaging supplies.

Further Alcohol Cut?

RUMORS are rife that the amount of alcohol to be allowed for the manufacture of cosmetics will be cut from the present seventy per cent limitation to fifty per cent for 1943. However, nothing is definite as yet so all that manufacturers can do is hope and pray that alcohol production with respect to the needs for the war effort will improve rapidly.

California Pharmacy

IN CALIFORNIA proprietary medicines sold under registered trade-marked names can be sold by merchants other than registered pharmacists. The grocers of that State recently applied to the State Board of Pharmacy for permission to sell such items as absorbent cotton, adhesive plaster, cotton bandages, medicated corn plasters, aspirin tablets, boric acid, citrate of magnesia, Epsom salts, hydrogen peroxide, iodine, and mineral oil. The board refused to allow the grocers to sell all these items, permitting them only to sell absorbent cotton, adhesive plaster, cotton bandages, and medicated corn plasters.

Coffee or Munitions

THE criticism of coffee rationing by W. F. Williamson, manager of National Coffee Association, was not only in extremely bad taste, but it showed woeful ignorance of a condition which he should have investigated before he made any such statement. Certainly he is not unsympathetic with the war effort which is being made for his survival as well as for the survival of the rest of us.

He did not seem to realize that the babassu nuts are to replace the copra from the Phillipines for the production of an oil that will give us glycerin with soap as a by-product. We hope he does know that glycerin is used in the manufacture of nitroglycerin which is an explosive. Neither did he seem to know that castor oil is now extremely important to the war effort because it is used to replace Chinese tung oil, which is now cut off by Japan. The castor oil is used to make a base for quick-drying paints and varnishes vital to the rapid mass-production of tanks, guns, planes, jeeps, and warships. A mechanized army must be protected from weathering and rust or it soon becomes useless. We haven't investigated the reason for the imports of glue and beef bones, but we know that they are equally important and maybe Mr. Williamson has been told the reasons by now.

Doctor Shortage

THE shortage of doctors for civilians continues to become more acute as more and more doctors are taken into the armed forces. Charles P. Taft, assistant director, Office of Defense, Health and Welfare Service, told the American Public Health Association recently that the shortage of doctors now constitutes a most serious handicap to the government's general health and sanitation program. "We are approaching a point," said Mr. Taft, "where the Army will have to work out a system under which their tables of organization will not actually be filled until their units approach front-line action that requires that number of doctors. The armed services cannot themselves afford the serious depletion of manpower in production, and of morale on the home front, created inevitably by the lack of at least minimum medical services."

Late last month, New York State was thirty-six per cent behind its quota of 8,000 doctors to be supplied to the armed forces by December 31, according to Dr. Henry W. Cave, chairman of Procurement and Assignment of the War Manpower Commission in the Second Service Command. Five states are not meeting their quotas, said Dr. Cave, and New York is the farthest from it of any of these states.

Buys Chemical Maker

AMERICAN Home Products are taking over the Harmon Color Works for the purpose of controlling a company that can supply the drug units of the parent company with sulfa drugs and other synthetic organic medicinals. The shortage of sulfa drugs has been very acute due to the rapidly increasing size of government demands. One manufacturer turned over to the government one hundred per cent of its production of sulfanilamide last month. While there are many manufacturers of sulfa drugs, and while the production figures are astounding when considered against a normal demand, drug manufacturers are having an extremely hard time getting supplies for other than war orders, and it is not easy to get all that is needed for these orders. American Home will not be the first drug manufacturer to control a chemical manufacturer since Vick Chemical Company owns both an ethical drug house,—The Wm. S. Merrell Company—and J. T. Baker Chemical Company; also Lederle Laboratories and Calco Chemical Company are both units of American Cyanamid. American Home is the owner of an ethical drug house,—John Wyeth & Brother.

Quinine Shortage

THE shortage of quinine supplies has resulted in one leading seller of quinine now offering nothing for civilian use in malaria cases but totaquine. All this seller's supplies of quinine are going to the government for the use of the armed forces and our allies. Further than this, Norman Taylor, director of the Cinchona Institute, is making a trip through South America in search of sources of quinine supplies.

Christmas Pricing

THE OPA has issued an order setting forth the methods to be used by manufacturers in pricing their special Christmas merchandise. The order does not seem to present any great difficulty, since any manufacturer who is pricing his merchandise in a normal or sensible way would arrive at the same conclusion.

Industry Concentration

IF A concentration program is adopted in a consumer goods industry, the industry will be given the opportunity of deciding whether brand names should be maintained by the nucleus plants still allowed to turn out the products of the industry. This information was divulged by Joseph L. Weiner, deputy director of the WPB office of civilian supply, and chairman of the WPB committee on concentration of production. Concentration, according to Mr. Weiner, is a solution to a problem whose other alternative is production levels uniformly reduced until there are no longer economic possibilities. The concentration policy he said, "takes us far away from some of the things we have valued in our peacetime economic life. The fruits of past enterprise are threatened and some will be lost. We are departing from the spirit of the anti-trust laws and must keep in mind the possibility that monopolies will be fostered." This statement appears to strengthen the opinion of some merchandising observers that the wartime trend of government will adhere to the pattern established in NRA days.

Ceilings and Fair Trade

THE matter of violations of the General Maximum Price Regulation and the State Fair Trade Law Contracts came before the Appellate Division in New York late last month. The case has first been before the Supreme Court and an injunction was denied against William Siegel, a New York City druggist, who has been selling forty-five different products below contract prices because he sold them at these cut prices during March. However, the Appellate Division reversed the decision of the Supreme Court in the suit which was instigated by three of the defendant's competitors. The Appellate Division, in an unanimous decision, said that because the Federal price regulations must be obeyed, the defendant should be "restrained from selling the articles complained of at any price," unless he could obtain from the Price Administrator permission to adjust his prices to the contract prices under the State law. The court said that the defendant must "now suffer for his wrongdoing and bad faith." In the decision the court said:

"We do not believe that it was ever the intention of the Congress by legislative enactment to put its stamp of approval upon unfair trade practices by permitting violators of a State fair trade law to profit at the expense of those who in good faith complied with its provisions."

To change this decision it would be necessary for the defendant to appeal to the State Court of Appeals which is the highest court in New York State. However, if the defendant did not appeal the case or if he lost again in the State Court of Appeals, he could obtain permission from the OPA to raise his prices to the contract levels. This was stated in an order of OPA issued September 19 and reported in our October issue.

Tubes in Gift Sets

A STILL further amendment of the collapsible tube order of the WPB was issued last month. Under this amendment, gift boxes are exempt from the requirement of empty tubes being exchanged for full tubes if these packages are sent to members of the armed forces of the Nation. The amendment reads:

"Notwithstanding any other provisions of this order, gift kits or combination set boxes holding multiple units, including Class 3 or Class 4 tubes, the value of which comprises not over 25 per cent. of the total value of the packages, may be disposed of without complying with the used tube exchange provision set forth in paragraph (d) (3) hereof: provided that any such boxes are delivered or sent direct by the seller to a member of the Army or Navy of the United States or of the United States Coast Guard."

Government Needs

A LEADING manufacturer of citric acid recently notified their customers that for the last quarter of this year it is necessary to make a further reduction in the amount of citric acid that the customers can have. Formerly customers were able to get seventy-five per cent. of the amount they consumed in a like period last year. Now the percentage has been cut to fifty per cent. of the amount consumed in a like period last year. The curtailment is due to government requirements and an inability to get raw material or equipment for greater production. If government requirements keep on increasing at the same rate, the company might have to drop another shoe. Some chemicals used by drug manufacturers were taken from certain manufacturers for September and October at a rate of from ninety-two per cent. to one hundred per cent. Consequently sales of these drugs for civilian consumption were almost, if not completely eliminated.

The Baby Market

WITH eighteen per cent more babies born in 1941 compared with the average for the previous ten years, and this year apparently topping 1941 by a wide margin, manufacturers in this industry and retail druggists can exploit the market for baby needs and thus make up for the loss of other types of goods. I. H. Bander of McKesson & Robbins points out that drug store purchases for babies approximate three times the annual average for adults.

Packaging Problems

JOEL Y. LUND, of the Lambert Pharmacal Company, who was recently reelected president of the Packaging Institute, stated at their meeting held early this month that WPB regulations "have gone too far in prohibiting the manufacture of packaging machinery for the duration." Properly designed machines, he said, not only decrease costs, but also make much easier the tremendous production capacities necessary, which will become increasingly important as the labor shortage increases. With regard to packaging problems today, Mr. Lund said:

"We have been accustomed so long to having perfect protection in cans or glass or other materials that there is a tendency to write specifications for substitute materials that say in effect 'just make a paper package that is equivalent to a glass bottle or tin can and we will be satisfied.' This is particularly true on some of the government packages, but it also applies to civilian packages. Usually it is supposed to be accomplished by dipping the container in wax or using one of the new moisture-proof laminated bags. If a single package is not satisfactory, two are used, one inside the other.

"In packages for the Army, there is also the slight matter of maintaining this protection at temperatures of 25 degrees below zero and 120 degrees above, so that by the time all these specifications are met, the packaging operation is very complicated. With no opportunity to get special packaging machinery, this presents a terrific manufacturing problem, particularly in producing the very large quantities that are needed.

"The government, of course, is doing the only logical thing in setting up rigid-enough specifications to be absolutely certain that the materials reach their destination in the proper condition.

"I believe, however, that subsequent investigation will show that many of the items are overpackaged, and that a study based on actual protective requirements will indicate simplifications that will not only greatly aid in the necessary rapid production of the items, but will save materials for other uses where they are absolutely necessary, and materially reduce costs."

COSMETIC LIMITATION

THE cancellation of the Cosmetic Limitation Order L-171 by WPB last month does not mean that cosmetics are not to be limited in output. It does mean, however, that there will not be any arbitrary limitation of cosmetics as to kind of product, shade, size of package, or any of these things. There is to be no objection to a manufacturer bringing out a new product. The control of cosmetics is to take the form of a control of the raw materials that go into cosmetics. If some of these raw materials for the making of cosmetics, or for the packaging of cosmetics are critical with respect to the war effort they will be curtailed or ruled out altogether for use by cosmetic manufacturers.

This is the plan that we advocated before Order L-171 was issued. Under the present plan of control by curtailment of raw materials, manufacturers are allowed to use their ability to find substitute materials for those that are taken away from them. Therefore, there will be no curtailment of lipsticks if the manufacturers are able to find a substitute for the critical castor oil or for the critical metal or other holders. There will be no curtailment of hair preparations merely because castor oil and alcohol are critical; the manufacturers are allowed to make as much of their products as they want if they are able to substitute for these critical raw materials. Likewise, manufacturers can substitute for metal closures, tin cans, or any other types of containers that they are not now allowed to use.

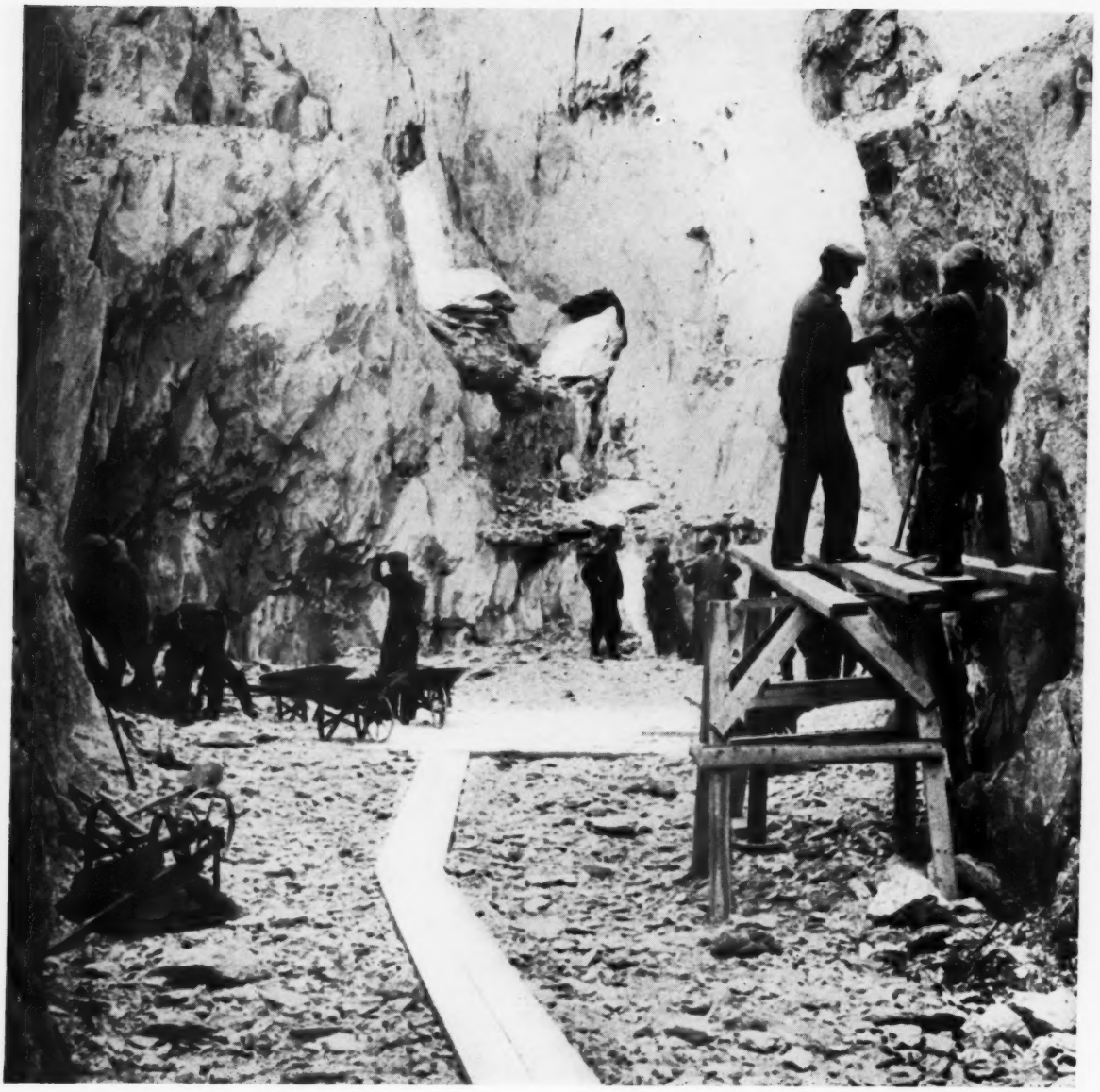
Under these circumstances the cosmetic industry may have tough sledding in certain respects, but it can continue. Cosmetic manufacturers must realize that even the drug manufacturers are being curtailed in their civilian output due to government demands for the raw materials which they use. There is practically no more quinine for civilian use even for the treatment of malaria; totaquine must be used now. A very large manufacturer of citric acid had to inform his customers that for the last quarter of this year they could have only fifty per cent. of the citric acid that they bought for the last quarter of 1941. Drug manufacturers are being forced out of tin cans into paper for their household drugs. Bayer's Aspirin is coming through in paper instead of tin for the pocket packages of twelve tablets. McKesson & Robbins is packaging its larger package of Aspirin in paper instead of glass with a metal closure. Grove's Laxative Bromo Quinine Tablets cannot be made with quinine any more, and quinine appears in the name of the product, this valuable trade name must be laid on the shelf for the duration. The same company is not allowed to use quinine in still another product that has been growing over the years,—the Four Way Cold Tablet. Agar Agar supplies are so short that drug manufacturers can not use it in their products. This has caused an old and respected trade-mark to be changed, —Petrolagar is now Petrogalar, because it contains no agar agar. Another well known product of the same type,—Agarol—is being pressed by the Federal Trade Commission to change its name because the product can no longer be made with agar agar.

Despite the curtailment of materials for manufacturing products and for packaging them, drug manufacturers are, for the most part, able to keep their production up to the point at which shortages are not noticeable. The effort that this is taking is evidenced not by the examples given above, but also by the fact that a large manufacturer of ascorbic acid, or vitamin C gave the government 92.6 per cent. of his output of that product last month, and a large manufacturer of sulfanilamide gave the government 100 per cent. of his output of that product last month.

Naturally, civilian demand for drug products would be expected to decline as men join the armed forces and get their medical treatment from the government. However, with much larger numbers of people employed, demand for remedial agents has risen sharply, and satisfaction of this demand is essential to production and morale on the home front.

But to get back to cosmetics, all curtailment in the production of perfumes and toiletries will come about through WPB orders which control the flow of materials into direct production for war materials. We now have

(Continued on page 531)



TALC RESTRICTED

THE freezing of talc supplies under WPB Conservation Order M-239, issued October 13, has created considerable consternation among cosmetic manufacturers. In the first place the order freezes what is called "steatite talc." While the word "steatite" is really a synonym for talc, it is used in the talc industry to define the grade of talc used by ceramic manufacturers. This particular grade is being conserved under the order for making steatite insulators for use in communications, radio, radar, underwater sound equipment, and spark plugs being made for government needs. Use of this talc is also permitted for the filtering of foods, flavoring extracts, and medicinal preparations, as well as for compounding medicinal preparations and health supplies with the exception of talcum powder and cosmetics.

But the consternation in this industry is caused not by the fact that this particular grade of talc is restricted, and that after November 15 no talc can be used for other than permitted purposes, rather it caused by the definition of steatite talc given in the order. This definition reads:

"Steatite talc means naturally occurring magnesium silicate, both crude and beneficiated, suitable for use in the manufacture of electrical insulators and containing not to exceed one and one-half per cent. (1½%) lime (CaO) and one and one-half per cent. (1½%) ferric oxide (Fe_2O_3)"

From the point of chemical purity, this definition fits a very large part of the talc used by cosmetic manufacturers. In body powders, cosmetic manufacturers use a talc that is higher in impurities than that defined in the order and this talc is clearly exempt and can be used without any action being taken under the order. This means that if a manufacturer has on hand talc that contains lime in excess of one and one-half per cent., or ferric oxide in excess of one and one-half per cent., he can go ahead and use it, and dealers who have this talc are allowed to sell it to cosmetic manufacturers. But if a cosmetic manufacturer has on hand talc that is within the limits of purity stated in the definition, then he cannot use unless he is able to prove that it is not suitable for use in the manufacture of electrical insulators. To prove this it is best to send samples of the talc to an outside independent laboratory equipped to make such determinations. If the laboratory reports that the talc on hand is not suitable for the manufacture of electrical insulators, then it can be used for the manufacture of cosmetics.

There are differences in the physical characteristics of talc that make it suitable or not suitable for the manufacture of electrical insulators. The talc ordinarily used in cosmetics is a scaly, soft, foliated type of talc, while the steatite, or ceramic, talc is a chalky, hard, crystalline, massive type of talc. However, the WPB froze all talcs of a certain purity regardless of the differences in physical characteristics. The freezing order is said to spring from a desire on the part of the WPB to create a reserve supply of this vital material in the East. It is understood that there is more than enough ceramic talc on the West Coast to take care of any possible maximum requirements plus. However, the supplies in the East are said to be fairly well exhausted and the twin difficulties of transportation and labor made it appear desirable to all talcs including the cosmetic type of the desirable chemical purity.

Since the disappearance of Italian talc from the market, face powder manufacturers have been using Indian talc and certain domestic talcs. All of the Indian talc and all of the domestic talc containing not more than one and one-half per cent. of lime or ferric oxide are affected by the order.

The only thing that the cosmetic manufacturers can do under the present circumstances is to use those talcs of steatite purity that are not suitable for ceramic use because of their physical characteristics, or to find substitutes for talc in their formulas. Some manufacturers will probably stretch their talc supplies with precipitated chalk, while others might turn to still other minerals. Among other minerals which are being investigated is a particular grade of pyrophyllite which comes from Newfoundland. Pyrophyllite is aluminum silicate, whereas talc is magnesium silicate. The particular grade of pyrophyllite which comes from Newfoundland is of a high grade of purity. It contains 66.6 per cent. of silica, against a theoretical amount of 66 per cent.; it contains 27.6 per cent. of alumina, against a theoretical amount of 28.3 per cent.; the loss on agnition is 4.5 per cent., leaving a total of possible impurities of ferric oxide and lime of not over 1.3 per cent. The cost of this material, which is much higher now then during peacetime, would be somewhere between $50 and $60 per ton.

Talc varies widely in quality. New York State is a very large producer of talc, but the grade produced in New York is entirely different from that used in cosmetics and New York State talc finds its use as an extender in paint. Other industries are used of still different grades of talc such as soapstone. If all these various grades are taken into consideration, then the cosmetic manufacturers use only two to three per cent. of all the talc produced. However, the talc that cosmetic manufacturers use is entirely different from soapstone and from many of the grades of talc used in the paint industry and many other industries which are considered large users of talc.

COSMETIC CAMOUFLAGE

Convenient as it may be for him to reach down and plaster local mud on his face for camouflage purposes, the American soldier deserves better from his Quartermaster. All that can be said for the mud is that it is handy and matches the color of the surroundings. But it does not stay on the face after it dries, and tropical mud is far from sanitary.

We reemphasize that this is still another opportunity for make-up specialists in the cosmetic industry to promote this country's war effort. Provide the doughboy with a manufactured mud pack free from chiggers, ticks and other natural pests.

Greasy pastes will be necessary only for the most stringent purposes, where the ultimate in adhesion is required. Normally, a washable cold cream, low in oil, and with large amounts of pigments to give proper color blending with natural surroundings should fill the bill. The cream should be a quite soft one, so that it can readily be smeared on the face by the handful.

PLASTIC SUPPLIES

By FRANK CARMAN
Chief of Plastics and Rubber Section, Chemicals Branch, War Production Board

Manufacturers in this industry are in a quandary as to what plastics are available and which are not. This paper delivered by the WPB Chief in charge of plastics before the Society of the Plastics Industry should clarify the picture.

CELLULOSE PLASTICS

The cellulose acetate plastics are now controlled by mandatory order No. M-154, which has been operating fairly satisfactorily in respect to this class. It has been reported that this material is in relatively free supply and that Class III uses can be supplied in full. There is some indication that business has substantially diminished for other reasons; it might be well to point out that plasticizers are not in free supply at this time and Class III uses under the M-154 Order may not continue to be satisfied in full for this reason.

Production of cellulose acetate butyrate has increased somewhat during the last few months and it is estimated that supplies are sufficient to meet all military and civilian uses now allowed under the existing order.

Allocations of cellulose nitrate raw materials, for the month of October, have been reduced to the point where only a portion of Class II products in order No. M-154 will be supplied. The reasons for this shortage are that the plastics industry requires a special grade of nitro cellulose and, in addition the capacity cannot be increased because of the curtailments necessitated by large war demands on the ammonia supply. Even though production of ammonia is being materially increased, the demand for other more important war products will not allow further diversion to this plastic. Therefore, the shortage of ammonia, the allocation of nitro cellulose (because of acute short supply situation) and the increasingly large demands for solvents and plasticizers will tend to decrease the production of less essential items in cellulose nitrate plastics.

METHYL METHACRYLATE RESINS

The monomer is being currently produced by two chemical companies and the bulk of the production is now being used for cast sheets for military aircraft. In this form, it is used for bomber noses, turret tops, domes, and other special equipment. A limited amount is being used for molding powder, water-proofing of certain military jackets, and special chemical warfare items. There are definite limitations on the amount of aircraft sheeting that can be produced. However, plans are going forward for an expansion of monomer capacity to about 141% of the present production and in the cast sheet capacity to about 180% of the present production. The limitations on expansion of methyl methacrylate resins are mainly in the equipment field, since large amounts of stainless steel are required. The supply of this resin for all civilian uses, with the possible exception of dentures, has disappeared entirely. All of the current production is required for direct military uses. It is quite possible that full allocation of acrylate resins will be necessary in the immediate future, and that the casting capacity will likewise be allocated to insure fulfillment of the most necessary direct war products. The expansions now underway will not be completed and in production before September, 1943, therefore no relief is expected during the next year.

A valuable contribution to the war effort can be made by all of you by advising and directing the use of less critical resins in some of the marginal or less essential items where acrylates are currently specified or used.

VINYL POLYMERS

Polyvinyl chloride and vinyl chloride co-polymers are the most important of the vinyl group in the war effort. Large quantities of these resins are currently being used to replace rubber and even in many products where rubber is not satisfactory. It is estimated that approximately twelve million pounds of these resins were used as rubber substitutes during the first six months of this year and the resulting saving in rubber might be conservatively estimated at eighteen million pounds. The production of these resins in the United States can be divided roughly into two classes; one covers polymers containing 92% and more vinyl chloride, and the other, those with less than 92% vinyl chloride. The production capacity of the high molecular weight resins (over 92% vinyl chloride) will reach an annual rate well in excess of 25 million pounds per year in the very near future.

The principal direct war uses for this grade of resin are generally known in the industry; namely, wire and cable insulation for shipboard use, special sheetings for aircraft accessories, and certain tank linings where the lower molecular weight resin material is not satisfactory.

The direct war uses for lower molecular weight resin have been materially expanded during the past several months, and it was necessary to include this grade in the allocation order during May of this year. The principal uses are for the conventional rigid sheets for aircraft windshield and cockpit covers, plotters, and computers; proofed goods including army raincoats, special plane paulines and engine covers, field bags, hospital sheeting, and other Army and Navy items. The material is also being used in certain chemical tank linings, special protective paints and paper coatings. Only the most essential civilian products are currently being allowed, and it is the opinion that war products will require increasing amounts in the next several months.

There are definite limitations on the expansion that can be made in the manufacturing capacity for vinyl resins as large amounts of acetylene and chlorine are required as the principal raw materials, and the reactions must be handled in stainless steel equipment. Likewise, an increased tonnage of resin will require a corresponding increase in plasticizer in order to make the resin useful as a rubber substitute.

VINYL ACETATE AND POLYVINYL ACETATE

This material is used not only in an intermediate stage for the manufacture of polyvinyl alcohol, polyvinyl acetals and vinyl chloride co-polymers, but has recently become a commercially important resin in its own right where it is generally used in the form of polyvinyl acetate water emulsions or alcohol solutions. There are two major producers of vinyl acetate monomer and even though these companies are running at capacity, the current production will not begin to take care of all the important war uses, which include the production of sulfa drugs, as well as the polymers already mentioned. These products have become increasingly important as they can be used as rubber substitutes, and many new military and civilian uses have been developed in the last six months.

One of the essential uses of vinyl acetate is in the manufacture of sulfa drugs and approximately 7.0% of the current production must be diverted to that purpose.

A large amount of vinyl acetate is being used in the manufacture of vinyl chloride co-polymers already discussed. It is estimated that 14% of the available material is being used in this production and this will probably be continued unless some unforeseen requirements develop.

There are four major producers of polyvinyl acetate either in emulsion or alcohol solution. These are currently being used for adhesives in the bonding of textiles, paper, cork, leather, etc., usually by heat sealing; they are also used in the manufacture of printing inks, textile-sizing, show adhesives and special coatings. Recent large demands have come in for use of these resins for special sealing compounds, for food packages, shoe cements and shoe impregnating compounds, and ammunition boxes on direct war contracts. There is not enough raw material for the producers to run to capacity, thus only high-rated, direct war products can be supplied.

There are three principal producers of straight polyvinyl acetate resins, which are used mainly for adhesives. It is expected that production will be reduced very materially because of the raw material shortage.

Polyvinyl alcohol, a large consumer of vinyl acetate, enters into the production of direct war products such as special linings, solvent-resisting tubing, textile finishes, paper specialties, and film. There are several potential war items which may require a large volume of this resin, and there is no indication that the material can be made available for civilian items in the immediate future.

Vinyl acetate is the principal raw material used for the manufacture of the acetal resins. The bulk of vinyl butyrals were formerly used as the plastic in safety glass manufacture. Even though this use has been greatly reduced because of the decline in civilian automotive production, there is now a large demand for this resin for the manufacture of several war products. There are three major producers of this grade of resin at present. The acetals are produced from the acetate monomer by polymerization, conversion of the polymer thus produced into polyvinyl alcohol, and condensing this in turn with the corresponding aldehyde. The condensation products are rubber-like, plastic and elastic, or hard and brittle resins depending upon the aldehyde used. The two most widely produced resins are the polyvinyl formal and polyvinyl butyral. The latter resin is currently being plasticized and compounded on conventional rubber equipment for the fabrication of raincoats and similar war products. Some of the other major uses for the acetals are special wood impregnates, wire insulation, fuel tank liners, army fabrics of all types, gas masks, shatterproof glass, protective cover, clothing, and laminating cement for sealing special envelopes and packages. Approximately 43% of the present vinyl acetate production is being diverted to the production of the acetal resins.

The main restriction on larger production is the supply of acetate monomer. It is estimated that the present requirements for acetate monomer are now about 131% of the production capacity, and this will rise to 200% by March, 1943, because of direct war requirements. As already indicated, an expansion in monomer capacity is underway and it appears that we will have facilities available by the middle of 1943 in an amount equal to 180% of the present production capacity.

To insure the use and delivery of vinyl acetate monomer to the most important war uses, it has been necessary to place this material under full allocation, and to effect this, General Preference Order No. 240 was issued October 8, 1942. This calls for deliveries by the two producers only as directed by the Director

General for Operations; it will be a relatively simple order to administer in that the material will be delivered to only a few prime consumers, including six drug manufacturers. Forms PD-600 and PD-601 completed by the applicant and producer respectively are the only reports required by the War Production Board.

In addition to the vinyl acetate order, all vinyl resin polymers have been placed under complete allocation through a new amendment to General Preference Order No. M-10, effective October 10. This order originally covered the complete allocation of only the polyvinyl chloride resins, but it has been deemed necessary to put all the vinyl resin polymers under this same mandatory control, as there is not sufficient material to satisfy even the direct military demands at this time.

The order restricts use and delivery except as authorized by the Director General for Operations. One of the major changes effected by the new amendment will be the restrictions on the use of scrap which from now on may not be used except for the purposes as authorized. Allocations will be made to the most essential end uses and applicants will report requirements to the War Production Board on Form PD-36 as before. It is imperative that the end use function be clearly defined in these reports, otherwise there may be considerable delay in authorizations for many essential products. A transmittal letter giving full instructions for resin applications will be sent each applicant.

POLYSTYRENE

As already indicated in the press, the synthetic rubber program calls for considerable expansion in the styrene production facilities for the manufacture of Buna S. It has been previously announced that approximately 200,000 tons of monomer styrene will be produced in seven plants. It is possible that a slight excess of this material will be available for the manufacture of polystyrene resin, and this, of course, will be available for certain war products. Production of polymer in October will be at least as large as that of previous months and this will be used mainly in direct war and essential civilian products. It is believed that the only future uses of polystyrene that can be allowed will be similar essential items including electrical insulation, special coating requirements, and instances where the material is a substitute for rubber. It naturally follows that the latter diversion of styrene can only be effected when there is a surplus of monomer from the general rubber program.

UREA FORMALDEHYDE MATERIALS

The distribution of urea formaldehyde and melamine formaldehyde materials is currently being controlled by General Preference Order No. M-25. Both are adequate in supply to take care of military and essential civilian needs. However, the growing demands on ammonia for other strategic military products might conceivably cause a further reduction in the availability of urea for some of the less essential civilian applications. There is a growing demand for the melamine resins which now indicates this grade might possibly be restricted to necessary military items in the insulation field. If you know of any potentially large requirements for melamine resins, it is suggested that these be called to the attention of the War Production Board Chemicals Branch before major steps are taken for such uses.

PHENOLIC RESINS

The uses of this versatile class of resins are widespread and most of those present are more familiar with the material than the speaker. It is estimated that there are sixty-six producers of phenolic resins, some of them for their own consumption, and 1775 users. As you have probably learned by this time, it has been necessary to restrict the uses of phenolic resins to the more important war products because of the shortage of phenol. During the month of September, 1942, approximately 48% of the total phenol production was diverted to resin manufacture; of the total demands for phenolic resins for that same month, only 60% were satisfied. As a further clarification, it appears that only those items having a priority rating A-1-k or better were handled during that period. This does not include the resins made from the cresols and cresylic acids, which amount to a substantial quantity in the same field. Extensive expansions are being made in the phenol manufacturing capacity and it is expected that the rate of production during the latter part of 1943 will be 175% of the current rate. There is little need to discuss the many applications of phenolic resins and their place in the war effort. It is expected that the 1943 demand rate for phenolic resins will be 120% of the present overall requirement, and as already indicated this is being satisfied to the extent of only 60%.

The only control on the use of phenolic resins has been the General Preference Order No. M-25, and it appears that the large war requirements, thereby completely eliminating many of the essential civilian items, and the general change in rating structure has materially restricted the normal flow of these resins to industry. Therefore, the only fair and equitable remedy. will be complete allocation to end use. It is proposed to issue an order placing phenolic resin and phenolic resin molding compounds under complete allocation by prohibiting delivery, acceptance of delivery or use of those materials without specific authorization of the Director General for Operations. It is not the intention of the War Production Board to burden industry any more than necessary to insure the full and even flow of these materials for the best interests of the war effort. Present thinking on this operation of this order is along the following lines:

1. The user of phenolic resin products such as laminates, plywood, protective coatings, molded products, or miscellaneous items will certify the end use to the resin manufacturer. This certification will be accepted by the resin manufacturer and in turn used for reporting the end use to the WPB. Such certification need only be supplied with each order even though it may run for several months. You

can materially aid this control by educating your customers to give the proper end use certification and let them know you do not have to make shipments unless this is done.

2. The applicant desiring to purchase phenolic resin or phenolic molding compound, will report this end use to the WPB on Form PD-600, stating therein the amount of material he desires to use during the coming period.
3. It is planned to allocate resin and molding compounds to
   (a) End uses and for orders on hand as reported.
   (b) Anticipated end uses in the amount indicated by the applicant.
   (c) Inventory. This allocation is for the convenience of handling rush orders, but the applicant must obtain interim allocations to specific end uses before the material is used.
4. For the purpose of reporting resin and molding powder requirements, it is suggested that items requiring more than 5,000 pounds each be reported separately. Further, the applicant may "basket" orders for a similar end use, and he may employ this procedure as he sees fit as it will be squarely up to him to get the end use information across to the WPB. For example, it is believed that an end use listing under a classification such as "Army aircraft electrical insulation" could be used to cover a group of items including not only insulation employed in the radio equipment, but such other items as the ignition, insulation of landing lights and the wiring of the fuselage. "Army aircraft", "aircraft," or "insulation," alone will not be satisfactory. Another classification could be "Army Aircraft instruments and control parts" which would include pulleys, fairleads, cable guides, instrument cases and panels, control knobs, and perhaps bomb sight parts. It is obvious that electrical insulating parts of instruments might properly be placed in either of these classifications, but as long as you report it in one or the other but not in both, the objective of the report will be attained. As a further example, a suggested classification could be reported as "shipboard electrical insulation" to cover a group of detailed or specific end uses even larger than those already cited. In grouping of parts into one classification please try to be guided by similarity of "functions," which in turn depends upon the prime characteristics of the basic material. By and large, phenolic resins and their products find their most valid uses where proper advantage is taken of a combination of their fundamental properties. This use may be differentiated from many applications which we are tempted to make in these times where the only justification for the item is merely an out and out substitute for another critical material. To illustrate, a molded laminated antenna mast is a valid end use because it combines, structural strength, lightness of weight, and electrical insulating properties together with resistance to weather. On the other hand, a piece of laminated phenolic employed as a portion of the skin of an airplane merely in order to save an equivalent bulk of aluminum may very well be a less urgent use in the light of any given relative supply picture. Therefore, we would not agree to the "basketing" of these two parts under the broad heading of "aircraft members."

   We do not want vague end use listings such as "industrial equipment" or "oil well equipment." If the use in such case is known to be for example "motor pinions," then so state it. Here again, "industrial equipment" should be broken down to a further classification such as "electrical insulation" or "structural members" keeping in mind the end use function of the part that it will supply to the final application. Generally speaking, these materials have the following outstanding properties—good electrical insulation, chemical inertness, ease of fabrication, good mechanical strength, and lightness of weight. In most instances a valid choice of phenolic plastic as the material of engineering to be used will have been based on two or more of these characteristics. By contrast, a usage of phenolic plastics based solely on conserving an equivalent bulk of some other critical material is a relatively invalid use. Thus, in grouping the information which comes to you from your customers and reporting to the WPB, you must be careful not to in any way distort the actual and final function of the material in your customers' use. If any question is in your mind in the case of any given application, repeat the exact end use listing as certified to you. As a further suggestion, we would welcome the submission of suggested end uses in groups which any applicant desires to send to the War Production Board before the order may have become effective. We will gladly make comments and suggest changes when desirable for efficient handling.
5. In the event of bulk sales of material either to your customers, who fabricate for their own use, or commercial sale, a listing of intended end uses must be obtained from those customers in their certification to you. The order will clearly state that the matrial must be used for that particular end use originally certified to you and for which it was allocated, and any diversion of this to other end uses can only be made after specific authorization as provided therein. It is suggested that you acquaint your customers with this provision of this order.
6. The applicant may apply weekly or at any time for allocations to use inventory for specific end use if it is not possible to handle such orders on a monthly basis.
7. It is the intention and policy of the War Production Board to allow the production of all the essential war items requiring phenolic resins, and we will do everything possible to make the phenol available

(*Continued on page 535*)

SEASICKNESS

By M. A. LESSER

With an untold and untellable number of American men—and women—on all the seas of the earth, the reasons for a discussion on seasickness are quite obvious. Unfortunately even though the condition has existed ever since men have sailed ships, there is no agreement as to its cause nor is there any adequate remedy for its treatment. Moreover, despite its universal and disabling character, but little effort has been made to study seasickness and related conditions on a scientific basis.

Although seasickness is the subject most generally discussed in the medical literature, it is well to remember that there are several other conditions very similar and closely related to it. In their very recent review of the subject, McEachern and his associates[1] cited the work of the late Sir Frederic Banting (of insulin fame) who grouped a variety of conditions akin to seasickness and due to frequently repeated oscillatory movements of the body under the general term "motion sickness."

Included in this category are seasickness, airsickness, train sickness, car sickness, elevator sickness, and the sickness that results from riding merry-go-rounds, swings and other devices found in so-called amusement parks. More susceptible individuals may even be affected by dancing or by riding horses. Brooks[2] mentions that skiing has been known to produce nausea and vertigo, both symptoms of seasickness. There can be no question that the army "jeep" constitutes another element in the incidence of motion sickness.

In general there seems to be little doubt that all of these conditions are attributable to the same basic causes and that they can be safely considered together. However, the symptoms of train, automobile and airplane sickness are usually less severe than those of seasickness—the subject of this discussion.

No one is immune to seasickness and no age is exempt from it[2]. However, there are individual variations in susceptibility. In general, women are more susceptible than men and the condition is most common in apprehensive and neurotic passengers. Children, particularly infants, are largely immune to seasickness and the tendency to be affected vanishes with advancing old age. Deaf mutes are said to be insusceptible and it is reported that some heavy drinkers stand sea travel rather well. Race also seems to be a factor. Blackham's[3] experience leads him to believe that the Southern Irish, the Jews, and members of the Latin races are among the worst sailors from the standpoint of seasickness susceptibility.

The incidence of seasickness is also variable; depending upon such factors as the size of the ship, its degree of movement, the condition of the weather and other factors. Maitland[4] has said that the number of passengers who are desperately ill with seasickness are not as numerous as is generally imagined. He cites the fact that the average incidence of seasickness on one of the large express liners was only 0.8 per cent. during 1933 and even on a small 400-foot ship only one per cent. of the passengers were really ill. Even during the worst voyage recorded for 1933, on the roughest trip, only 8.7 per cent. were affected.

On the other hand, Hill,[5] who considers seasickness a normal response to an abnormal environment, says that, if given appropriate conditions, it is doubtful, if more than 5 per cent. of unhabituated persons will remain unaffected by a ship's movements. In his opinion the relief of an immunity from seasickness which tends to occur with repetition is likewise part of the normal response.

Unfortunate for methods of appropriate treatment, which still are largely empirical, an entirely satisfactory etiology for seasickness has never been established. There are many theories as to the cause of this ancient malady, but no sole cause. Hence it is generally believed that several factors enter into the picture, the affects of the several possible responsible elements varying with the individual. Reduced to a minimum, Poppen[6] is of the opinion that there are four mechanisms from which the stimulus for seasickness may arise: the labyrinth, the somatic senses, vision, and the higher cerebral centers (e.g. the mind).

While admitting the general contributing influences of the other factors, each one of these mechanisms has its own strong proponents and advocates. A large proportion of students of seasickness favor the labyrinthine theory as the prime factor.[1,7,8,9] This theory holds that the upset is caused by over-stimulation of the equilibritory mechanism (the semicircular canals of the ear) that results in a flow of stimuli to other centers and the vagus nervê.

Poppen[6] is one of the strong advocates of the theory that disturbances of the somatic (bodily) senses are the worst sinners. Ascribing all due credit to the labyrinth and the higher cerebral centers for their complicity, this naval officer feels that splachnic fatigue results from the unusual and excessive interplay of tensions and pressures among the abdominal viscera and the skeletal organization.

The factor of vision is generally conceded to be a disturbing element in the causation of seasickness. According to Brooks,[2] eyestrain caused by the glare of the sea and sky, and the unusual fixation upon moving objects, has been suggested as a cause; eye fatigue being most important.

Although Sargent[10] says bluntly that "Seasickness is not psychic," there can be no doubt that psychic factors do play a part in causing seasickness. Memory, association, apprehension, fear—all play a part in producing seasickness whatever may be the physiological mechanism.[6] An individual starting out with the idea that he or she is going to be seasick is seldom disappointed—sometimes even while the ship is still tied to the dock. Suggestion is also a potent factor, especially in the more susceptible. An unfortunate word, certain odors, the sight of another passenger giving way at the rail will frequently precipitate an attack in one who has been holding his own.

The symptoms of seasickness, especially in the more extreme forms, are very unpleasant and even reading about them is quite capable of giving one a queasy feeling in the stomach if the imagination is allowed free play. The three most marked and frequent symptoms, according to Sargent,[10] are vomiting, headache and dizziness. Loss of appetite is a general accompanying symptom. Diarrhea sometimes complicates matters, but more often the victim is constipated. In some cases the mental effect is slight; "others have a strong conviction that death is imminent, followed as time goes on by an unreasonable annoyance at its delay."[2] More violent symptoms may be followed by prostration or even collapse.

The degree of suffering varies according to individual susceptibility and also with the intensity of the ship's movements. Unless rough weather persists, the illness usually does not last more than a few days, but some persons are affected during the whole voyage.

With seasickness as with all other ailments, prevention is more important than treatment. There are many ways by which a sea trip may be robbed of much of its subjective terrors. However, before prophylactic measures can be considered adequately, it is necessary to briefly mention some of the more important factors which predispose to seasickness. Predisposing factors such as poor health, disease, improper food or over-indulgence (especially just before sailing), excessive drinking, loss of sleep, are all of immediate importance in making a person more susceptible to seasickness or to make the mal-de-mer worse. Constipation has frequently been indicted. Poor ventilation and unpleasant or suggestive odors are often mentioned among the causes which tend to increase the possibility of seasickness. According to Bennett,[11] anticipation is the chief predisposing cause.

From the foregoing it should be quite obvious that many things can be done to prevent seasickness or at least lessen its severity when the illness does occur. Much of the pertinent information has been concisely summarized by Sargent,[10] himself a frequent victim of seasickness, as follows: "For a few days before sailing, a person who is subject to seasickness should drink freely of water, see that the bowels move normally, and should eat easily digestible foods, avoiding greasy or slimy preparations. Overloading is unwise, and it is wise to avoid parties, banquets and indulgence in liquor. The night before sailing a good night's sleep should be had."

Other authors stress the importance of avoiding last minute excitement and rush by planning as far ahead as possible and by securing optimal accommodations. However, this hardly seems possible these says when all of the sailings are necessarily secret and hurried.

To calm the nerves of apprehensive, fearful or over-excited individuals, mild sedatives are sometimes given a day or two before sailing. These drugs are also often used to secure much needed sleep the night before embarking. Bromides and barbiturates are most generally employed for this purpose, but Sargent favors the use of chloretone (Chlorobutanol U.S.P.). Sedative also are given the first night out since the strange surroundings, as well as the unusual noises of the ship, militate against sleep.[12]

Once the ship is underway the keynote of prophylaxis is rest and sleep. Careful diet, bowel regulation, plenty of fresh air, warmth and an active occupation, especially one that distracts the mind, all help to contribute to a peaceful voyage unmarred by the nausea, vomiting, headaches and other discomforts that symptomize seasickness. Sometimes a tight abdominal binder is recommended to support the viscera. Brooks[2] cites one physician who prefers a belladonna plaster over the solar plexus.

Brooks also mentions that swallowing small chunks of ice, or sipping cold ginger ale or champagne may help to dispel oncoming nausea. Of champagne he says rather whimiscally that it is palatable to most people, helps to allay fear, and produces some muscular relaxation.

There is no specific treatment for seasickness.[13] As Elder[14] pointed out several years ago, in view of the uncertain and complex etiology of seasickness, active treatment, combined with the observance of certain principles of a general hygienic nature, can only be considered to be empiric at best. Moreover, because of the multiple, complicated causal factors concerned in bringing this distressing condition about, no single one of the many therapeutic measures available is a specific. Treatment, he feels, should be individualized.

However, experience has indicated which of the numerous measures tried are of any considerable value for treating or relieving seasickness symptoms. In general such measures resolve themselves to the basic fundamentals of posture, diet and drugs. Posture is an important consideration and there is quite general agreement concerning this measure. A prone position, preferably on deck, in the fresh air, as near the center of the ship as possible is generally considered best; warmth and comfort are essential. While the seasickness is bad, Sargent[10] advises staying in bed, keeping warm and providing ample ventilation. After improvement it is wise to go on deck in the fresh air.

A tight abdominal binder is suggested by Elder[14] as an added physical comfort. Poppen[6] is a strong advocate of such a measure and recommends the use of a special belt which covers the entire abdomen and has an inflatable bag on its inner surface. In his hands the belt has given "uniformly gratifying" results in the treatment of a small number of cases. Such belts are believed to act by reducing mobility of the heavy viscera or venous pressure changes in the abdominal wall.

The great majority of patients in the throes of active seasickness can seldom stand the sight or smell of food, much less retain it. It is only after the vomiting has subsided that food can be tolerated and then it should be simple, easily digested and best given at frequent intervals in small quantities. Water intake is important, because prolonged vomiting may lead to a condition of dehydration and acidosis, both of which must be avoided. Alkaline drinks are especially valuable; water containing a little sodium bicarbonate is often recommended. Apart from counteracting the undesirable factors, "the water," according to Elder,[14] "gives the patient something to be sick with." Dry retching on an empty stomach is quite an unpleasant experience.

The value of dextrose in the treatment of seasickness, especially for individuals liable to acidosis or ketosis, and also for the prevention of seasickness, has been emphasized by Blackham[3]. It has been his experience that persons prone to seasickness are benefited by taking large quantities of dextrose or even candy ("boiled sweets") before commencing a journey. In many patients with mild symptoms, the sucking of barley sugar often improves their symptoms. He feels that dextrose should be tried before administering drugs.

Although a few writers are prone to disparage their use, drugs play an important role in the palliative treatment of seasickness. In the most recent, very comprehensive review of the subject, McEachern, Morton and Lehman[1] report that most authors consider two types of therapeutic agents: (a) Drugs useful in depressing the parasympathetic nervous system; these include atropine, belladonna, scopolamine, hyoscyamus and stramonium and their derivatives. (b) Drugs which act as sedatives to the entire system such as bromides, barbiturates and the like. Hence, note these authors, it is obvious that drugs of the atropine series and sedative drugs are, to date, the mainstays of seasickness treatment.

These findings coincide very closely with those made by Blackham[3] in 1939. He found that there are about eight remedies that stand out in the treatment of seasickness and lists them as follows: bromides, chloral hydrate, belladonna (its compounds and its alkaloid, atropine), chloretone, hyoscine, cocaine, ephedrine and benzedrine (amphetamine).

A study of this list shows that, unfortunately for self-medication, each one of the agents found to be most effective for treating seasickness are also potentially dangerous and hence should not be administered except by someone familiar with their limitations, dangers, and toxic signs.

Sedatives are the drugs most frequently used in treating seasickness. Of these, the bromides are undoubtedly the sedatives most often employed. According to McEachern and his associates,[1] "Bromides have long been considered among the most reliable sedatives in the treatment of seasickness." Other authorities have expressed very much the same opinion.[5, 15] The slower, more prolonged action of the bromides is also considered an advantage in the case of seasickness.[3, 5] The possibility of bromism should be considered, but Blackham is of the opinion that even in protracted seasickness it is exceeding unlikely for bromism to develop.

Hare[15] believes that after seasickness begins, bromides should not be given in ordinary solutions, but as an effervescent drink. For this purpose he recommends the following preparation, consisting of two separate solutions, a tablespoonful of each of these solutions to be added to one another and taken during effervescence:

I.	Citric acid	8
	Distilled water	120
II.	Potassium bromide	4
	Potassium bicarbonate	4
	Distilled water	120

Of course, this is a rather old-fashioned preparation, but it is well to remember that more convenient effervescent bromide products are available in both official (Compound Effervescent Salt of Potassium Bromide N. F.) and proprietary form.

Bromides are also very often used in combination with other drugs, especially belladonna and chloral hydrate.[1] Although chloral hydrate is itself seldom used because of its irritant effect in the stomach and its

(Continued on page 585)

FOOT POWDERS

By JOSEPH KALISH

IN THE not too distant future a large proportion of seven and a half million men will be wearing more comfortable shoes than they've ever worn before, but they will be walking far greater distances under heavier loads. In fact, right now there are enough of these men to give a well-rounded story of long hikes and aching feet. These men are customers, although indirect ones, through their Quartermaster, for preparations will make their feet better able to bear new burdens.

Foot powder is intended primarily for the relief of soreness and tenderness caused by excessive perspiration. The powder must serve three functions: it should provide lubrication between the foot and the sock, to prevent chafing; it should absorb perspiration; it should retard excessive perspiration.

For lubrication, or slip, talc is the old standby, but until differences between steatite and cosmetic grades of talc are defined, uses of this material in new products had best be avoided. A quite adequate substitute for talc is available, however, and increased demand could well be taken care of by greater and new production from known deposits. This substitute is pyrophyllite, a hydrated aluminum silicate (talc being a similar magnesium compound) not on the WPB list of scarce materials. A sample recently examined had the properties of a standard grade of talc and could easily be used to replace it. Finely ground grades are available for use where necessary, but foot powders do not have to pass any "bite test" and the less fine, and less expensive grades may be utilized. Talc (and pyrophyllite) is also fairly absorbent and will take up some of the excess perspiration to assist in keeping the feet comfortably dry. Zinc and other stearates are also lubricants and may be used, when available.

Absorption of perspiration is probably an even more important function of the foot powder than is lubrication. Starch has been strongly advocated for this purpose, and its ability to absorb moisture is very high. Nevertheless, this organic material will also form doughy lumps and might not be ideally suited for inclusion in foot powders. Furthermore, as an organic material, starch might well act as a nutrient medium to promote the growth of the bacteria and fungi usually abundantly present on the feet. Kaolin and Fuller's earth are both very highly absorbent and are frequently used in these powders.

Precipitated chalk has some real advantages in foot powders. It is low in price, very readily available, inorganic, and quite absorbent and lubricating. Although foot powders need not be white, the lack of color of chalk permits the powder to be either white or tinted any desired shade. Because of present factors, the proportion of precipitated chalk in foot powders might well be substantially raised.

Boric acid is often present to a substantial extent in foot powder formulas, partly because of reputed antiseptic action. Actually, boric acid is an extremely weak antiseptic and is useful primarily because of its softness, slip, and absorbency. It is soluble, however, and may well lead to caking. It is not notably easy to obtain under present conditions. Borax is also occasionally included in formulas. It is no more readily available than boric acid, it is less soft, more soluble, and has even less antiseptic value. The use of alkaline materials is not a necessity to neutralize the acidity of the perspiration, since this acidity is quite low and entirely normal.

Orris powder, occasionally mentioned in older formulas, is similar to starch as regards both advantages and disadvantages but is at present virtually unobtainable.

A very important addition to foot powder mixtures is an astringent to lessen the flow of perspiration. Large proportions of astringent are unnecessary and may even be harmful in that excessive drying of the feet may lead to discomfort. Hexamethylenetetramine has often been advocated for use in foot powders. It is stable and practically inert under ordinary condition. In contact with acid perspiration, however, it breaks down with liberation of small amounts of formaldehyde. Formaldehyde is an extremely active antiperspirant, and quickly stops the flow of perspiration, at which point breakdown of the original compound ceases and no free

formaldehyde, a potent irritant, is left. Since hexamethylenetetramine is made from ammonia and formaldehyde, the former being on the list of essential war chemicals, and the latter not too easy to obtain, use of this compound in war time is not very feasible.

Paraformaldehyde, a solid polymerization product of formaldehyde may be used. Tannic acid is occasionally mentioned as an astringent in foot powders and is effective, as well as mild and non-irritating. Its use in this connection is prevented by its great demand for burn treatment purposes.

Salicylic acid is present in many foot powder formulas. There is no good reason why it should be used. It is antiseptic and is useful in combating fungous infections; but it is a powerful skin-softening compound and might well make the feet more tender.

Aluminum sulfate is an extremely effective astringent, acting not only to stop perspiration, but also to toughen the skin of the feet. It is not expensive, not as essential war material, and can readily be obtained as a fine powder. If used alone, however, it will cause the deterioration of fabrics and must be buffered to keep its pH within proper limits. Zinc peroxide, occasionally found in formulas, liberates oxygen as an active antiseptic and is a fairly effective astringent. War needs have curtailed its use.

A few experimental formulas are given below.

Paraformaldehyde	7
Boric acid	5
Precipitated chalk	30
Pyrophyllite	58

Aluminum sulfate	8
Sodium sulfocarbolate	3
Kaolin	42
Magnesium carbonate	9
Precipitated chalk	18
Talc	20

Cosmetic Limitation

(*Continued from page 519*)

what is believed to be sufficient production of materials in this country, but they must be directed for use in the fabrication of those things which are sorely needed. Therefore, the whole production picture is now being handled by the control of raw materials. The WPB officials know what the production of all raw materials is, and they know what these materials are used for. It is up to them to divide the output of each raw material to the manufacture of various things, allocating the materials in accordance with the prime needs of the military and the civilian.

There is no need to anticipate any sharp curtailment of cosmetic and perfume production since it appears that manufacturers will be able to substitute for such raw materials and packaging materials as are taken away from them. Formulas of many products might have to be changed radically, but for the most part these changes will be slight. Difficulty might arise from the problem of transportation both of raw materials and finished goods as the loading of war materials becomes heavier. Labor might also prove a stumbling block as greater numbers of men are inducted into the armed forces and available labor is diverted to plants doing war work.

VICTORY PACKAGES

The new Victory package of 12 tablets of Bayer Aspirin which replaces the familiar tin somewhat resembles a folding match packet. Inside, secured to the base fold is a completely heat-sealed cellophane envelope to hold the tablets. A perforated line is provided at the top of the envelope to facilitate opening. If opened according to directions the tablets are said to be well protected as long as they remain in the envelope. At one point in the heat-sealed edge is a gap through which tablets may be dispensed one at a time as indicated in the diagram inside the paper folder. This is very ingenious and one of the more interesting of the war-time packages yet to appear in this field.

McKesson is using this slide carton to replace its glass package of aspirin. It is a good package and one in which considerable thought has been given to a dispensing feature. The small square area on the side is torn off by the user and the slide carton opened until the interior is exposed, at which time one or two tablets may be shaken out and the box closed again.

OIL OF CASSIA

A SURVEY

By DR. ERNEST GUENTHER
Fritzsche Brothers, Inc., New York

THE Chinese cinnamon, *Cinnamomum cassia* Blume, and the Ceylon cinnamon, *Cinnamomum zeylanicum* Nees, are two species which differ morphologically as well as physiologically. The leaves of the latter contain an oil in which eugenol is the main constituent (about 70 to 95 per cent.), while the leaves of the Chinese cinnamon or cassia, by which name we shall refer to this species in the following pages, contain an oil in which cinnamic aldehyde is the main constituent (about 70 to 95 per cent.) Cassia leaf oil and cassia bark oil are of identical chemical composition, while Ceylon cinnamon leaf and bark oil differ greatly in composition.[1]

Like other evergreens of the genus *Cinnamomum*, the Chinese cassia tree bears three-nerved leaves which, however, are oval-oblong and narrowed at each end. The flowers are pale yellow in color, borne in panicles and smaller than those of other species. The bark of the tree is pale and smooth with corky patches; on old trees it becomes quite thick. The dried bark, from which the outer layer (epidermis) may or may not have been removed, is bundled and exported as cassia bark or *cassia lignea* which, in ground or powdered form, is a widely used spice. The dried unripe fruit is exported under the somewhat misleading designation "cassia buds." These cinnamon flavored, brown colored "*flores cassiae*" consist of the calyx surrounding the young ovary and have some resemblance to cloves. The separated stalks, which are about 1 mm. thick and 10 mm. long, are a valuable article of commerce in China, where they are used in medicinal preparations. The low priced leaves, leaf stalks and young twigs, together with the various refuse products worthless for other purposes, are employed by the native growers for distilling cassia oil.

PRODUCING REGIONS

Oil of cassia is produced in the provinces of Kwangsi and Kwangtung, Southeastern China.

Kwangsi: In the districts surrounding the market centers of Tai On, Luk Chan and Yung Yuen.

Kwangtung: In the districts surrounding the market centers of Lo Ting and Luk Po.

HABITAT AND RANGE

The cassia tree prefers the slopes of hills. It seems to be rather selective because efforts to raise it outside of the present producing regions of China or in other countries have mostly failed. Since the fruit is eagerly eaten by birds, there exist many wild trees grown from dropped seed. When left alone, these wild growing trees attain great height; ten to thirty years old tree grow 30 to 60 feet. Their highly valued bark is not exported but used in expensive Chinese medicinal specialties.

PLANTING

Most cassia trees exploited for bark and oil grow on plantations cared for along the lines of typical Chinese patch or garden farming whereby families and groups cultivate certain hillsides or small sections. Similar conditions exist in regard to rice and star anise oil. In some cases the trees are raised from seed sown in nursery beds. When one to two years old, the seedlings are set out 50 cm. apart on the hillsides. More frequently the trees are propagated from cuttings planted during the first three months after the Chinese New Year.

HARVESTING

On the plantations cassia is grown as a coppiced bush. At five to seven years of age, the trees are from 5 to 9 feet high and ready for cutting. The trunks are cut close to the ground, and new shoots spring up from the remaining stumps and roots. Thus, a plantation once started lasts almost indefinitely. The principal harvest takes place in June-July, a smaller one in January-February.

The twigs which have attained a thickness of about 4 cm. are cut into pieces, the bark is loosened with

1. See "Ceylon Cinnamon and Cinnamon Oil," by Dr. Ernest Guenther, *Spice Mill*, January to April, 1941.

longitudinal slits and deftly stripped from the wood. The bitter tasting outer part (epidermis) is then scraped off and the bark dried in the sun until it turns brown and curls. The dried product is finally bundled, sold through a number of middlemen to dealers in Hongkong, and exported.

The small twigs and leaves obtained as by-products are dried and submitted to distillation when time permits. Some of the more prosperous peasants have their own stills, but usually the leaf material is sold through intermediaries to a still owner. The whole system is in accordance with the principles of ancient Chinese economy which allows the greatest number of people in an overpopulated, poverty-ridden country to participate in the minute profit of small transactions.

DISTILLATION

The stills are usually located on the slopes of glens or ravines or in places to which water can be brought through a system of bamboo pipes. The stills are of local construction and very similar to those used for the distillation of star anise oil. The distillation material, which is usually semi-dry, consists of about 70 per cent. leaves and 30 per cent. small branches and twigs. One picul (133-1/3 pounds) of this material is charged into the still and 2½ piculs of water are added. The heating is done with a slow fire in order to prevent the escape of oil vapors through the rather loose-fitting joints of still and condenser. The steam and oil vapors, passing through three holes in the still head, are reliquified on the bottom of a cooling vessel (a flat vase through which cold water flows) above the still head. The condensed water and oil drop from the bottom of this vase into the lower part of the still head from where the oil and water mixture flows through a pipe into a sort of Florentine flask. Oil and water separate in this flask; the water is refluxed into the still and cohobated. Instead of cohobating, some distillers use several Florentine flasks; the oil which is heavier than water separates at the bottom of these containers while the supernatant water is milky because of suspended oil. In the last Florentine flask the distillation water must be clear to indicate that it contains no more oil. If the water is not clear, it is returned into the still for the next operation.

Beneath the still is the fire kindled with the wood of cassia twigs from which the bark has been removed. Distillation of one charge usually lasts about three hours, but much longer if the fire is kept very low. Distillation of cassia leaves, like that of star anise oil, is a primitive home industry which goes on aside from the regular daily tasks.

YIELD OF OIL

The yield of oil is said to be fairly constant throughout the year. One picul (133-1/3 pounds) of leaves and small twigs yields about five-twelfths of a pound of oil, which is a little more than 0.31 per cent. This represents less than one-half the yield (0.77 per cent.) obtained by Schimmel & Co.[1] from imported leaves, leaf

Native cassia distillery with still of Chinese construction. Condensing vessel is on top of still. Water and oil separate in box-like container at left.

stems and young twigs. The probable explanation is that the imported leaf material was much drier than that used locally by the natives; furthermore, the Chinese stills are much less efficient. Von Rechenberg[2] concludes that these apparatus are especially deficient in regard to condensation, thus necessitating very slow distillation. As a result, hydrodiffusion in the tightly packed and conglommerated leaf material is inhibited and the oil not fully liberated from the leaves. This explains the low yield and also the relatively short time of distillation. Schimmel & Co. also demonstrated in their experiments with different parts of the cassia tree that the leaves yield more oil than the twigs (0.54 per cent against 0.2 per cent.). According to the statements of Chinese producers, too young and very old trees yield less oil than vigorous five to seven year old trees. Fully grown leaves are supposed to give better results than small young ones.

QUALITY OF OIL

The quality depends upon the leaf material used for distillation; it varies also according to season. In winter and early spring, the leaves and twigs contain oil which is said to be inferior to the oil from leaves harvested in midsummer and fall. The cinnamic aldehyde content of Chinese cassia oil ranges from 70 to 95

1. *Bericht Schimmel & Co.*, Oct. 1892, 12.
2. *Theorie der Gewinnung und Trennung der Aetherischen Oele*, Leipzig, 1910, pp. 448 and 449.

per cent.; in pure oils it is usually around 90 per cent. Only very young leaves, which are seldom used for distillation, yield oils with a cinnamic aldehyde content as low as 70 per cent. Since such oils do not meet the required standards, the Chinese distillers have no interest in producing them.

MARKETING THE OIL

Like cassia bark, the oil passes through many hands before reaching the exporters in Hongkong. There exists a network of field brokers, intermediaries, village merchants, and agents of Hongkong dealers and exporters, all of whom have their share in the handling of cassia oil. It has been suggested that cassia oil be purchased directly from the producers through reliable white purchasing agents, but such a procedure is absolutely impossible because of the peculiar conditions prevailing in the interior of China. The whole economic system would have to be changed before trading could be done so directly, and this applies not only to cassia oil but to all Chinese products, tung oil, for instance.

The native dealers and intermediaries in the interior usually judge the quality of the oil lots by mere appearance and physical behavior. By tasting drops of oil, by shaking a bottle to watch formation and disappearance of bubbles and foam, and by pouring the oil from a certain height into a filled container, these Chinese experts are able to evaluate with amazing accuracy the purity of an oil, the amount of kerosene and rosin present, and even the percentage of cinnamic aldehyde.

The chief trading center in the interior is Wuchow, the seaport of Kwangsi, from where the oil is shipped down the West River on junks to Canton and Hongkong. Since the province of Kwangsi levies an export duty on cassia oil, a large amount of oil does not go down the river (the most direct and natural route) but is smuggled out, carried across the frontier by coolies to Macao, the Portuguese port near Hongkong, and from there imported to Hongkong. How current Japanese occupation of the cassia oil producing regions is affecting this old custom is not yet clear.

Before the surrender of Hongkong to Japanese forces, there were operating in that seaport two Chinese dealers in whose hands practically the entire cassia oil trade was concentrated. For many years they exercised virtual control over this commodity, buying the oil from the distillers and small traders in the interior and selling it to the European exporters in Hongkong. In fact, every exporter had to purchase his required lots of oil from these two long-established Chinese dealers who enjoyed a very good reputation as honest and reliable merchants. One of them also owned a separate export firm through which he supplied his own customers abroad. No European firm ever succeeded in setting up its own purchasing organization in the remote and primitive producing regions.

The two Chinese dealers in Hongkong analyzed every incoming lot, especially for cinnamic aldehyde content by the regular sodium bisulfite method in the well known cassia oil flask. They sold to the European exporters large lots bulked and "made up" according to specifications demanded by buyers abroad. In other words, almost every lot of cassia oil reaching the United States or Europe had passed through the hands of one of the two Chinese dealers in Hongkong and had been "made up" according to requirements. The oil used to be handled like any other Chinese product, and the exporters in Hongkong had neither the technical knowledge nor the facilities to give cassia oil the expert care required by such delicate items as essential oils.

In the course of years there developed certain types or standards according to which Chinese cassia oil was exported from Hongkong. Genuine oil, that is oil free of any additions whatsoever, was seldom, if ever, shipped.

(1) Cassia oil containing 80 to 85 per cent. cinnamic aldehyde.

This type of oil is made up by cutting natural cassia oil of high cinnamic aldehyde content with a mixture of kerosene and rosin, as we shall describe later. It was exported mainly to England, Germany and France, less to the United States. This quality originated a number of years ago when some European buyer had the "bright idea" of insisting upon a lower and cheaper grade cassia oil. The Chinese dealers and intermediaries soon learned to oblige such buyers by resorting to artificial means, natural cassia oils with a low cinnamic aldehyde content being quite rare. Besides, the cost of distilling natural oils of high and low cinnamic aldehyde content is almost identical. To give an idea of the price differential between the various types of oil, we might mention that during the writer's stay in Hongkong in 1939, this grade was quoted on the spot at 285 dollars (Hongkong) per picul, f.o.b. Hongkong.

(2) Cassia oil containing 85 to 90 per cent. cinnamic aldehyde.

This type was exported to the United States and Europe. It, too, is made up by adding kerosene and rosin to oils of high cinnamic aldehyde content.

(3) Cassia oil containing 90 to 95 per cent. natural cinnamic aldehyde.

This type is closest to a pure oil and usually contains only very small amounts of kerosene and rosin. It was exported mainly to the United States. The price per picul in 1939 was 330 dollars (Hongkong).

(4) Cassia oil containing 90 to 95 per cent. cinnamic aldehyde, part of which consists of synthetic cinnamic aldehyde.

This type of oil is made up by adding synthetic cinnamic aldehyde to oils containing 80 to 85 per cent. aldehyde. When analyzed, such oils show a rather high percentage of kerosene and rosin, despite their high cinnamic aldehyde content. In 1939 the oil was quoted at 300 dollars (Hongkong) per picul. It might be interesting to mention that at the same time synthetic cinnamic aldehyde was offered in Hongkong at 240 dollars (Hongkong).

ADULTERATION

Cassia oil is adulterated in three ways:

(1) Addition of kerosene and rosin by the native dealers and intermediaries to the small lots which they handle.

Such adulterated lots are often bulked with pure oils so that the addition of kerosene and rosin in the final larger lots is not very evident. The small lots pass through so many hands that it is impossible to determine by whom the additions were made. One small dealer usually blames it on another. Since cassia oil is often stored and transported in the interior in former kerosene cans, there also exists the possibility of contamination.

(2) Regular addition of kerosene and rosin to lots of high cinnamic aldehyde content, lowering the quality to the 85 to 90 per cent. type.

This is done either by the larger dealers in Wuchow or by the two previously mentioned Chinese merchants in Hongkong. They informed the writer that they prepare low priced cassia oils upon request for such quality from the Hongkong exporters. The pure oils are cut with a mixture of

1 part natural cassia oil
1 part rosin
1 part kerosene

3 parts

This mixture is heated and boiled for about six hours until the rosin is dissolved. The cinnamic aldehyde content of the compound is determined by the bisulfite method. The composition serves as basis for cutting oils of 90 to 95 per cent. cinnamic aldehyde content to any percentage required by exporters or the buyers abroad. This artificial basis used to be exported as low grade "cassia oil" to Japan and India, which countries do not insist upon a high percentage of cinnamic aldehyde.

(3) Sophistication with synthetic cinnamic aldehyde.

This used to be done mainly in Macao, the Portuguese free port on the South China coast, to which much cassia oil is smuggled overland from the interior in order to avoid the export duty of the province of Kwangsi. For this reason, the Macao oils for a long time stood in ill repute. Since a great deal of cassia oil is shipped from Macao to Hongkong, and reexported from there, the Hongkong Chamber of Commerce became quite alarmed over the danger that buyers abroad, discouraged with adulterated oils, might finally choose to replace cassia oil altogether with synthetic cinnamic aldehyde. That would have meant a serious loss to Hongkong. Import and export statistics show that during 1937 almost 18,000 pounds of "cassia oil" were imported from France to Hongkong. Since France does not produce cassia oil, it can be assumed with some certainty that this so-called "cassia oil" consisted of synthetic cinnamic aldehyde.

The synthetic cinnamic aldehyde offered in Hongkong was usually made in Europe and when the European war broke out in 1939, Hongkong was cut off from its former sources of supply. At the end of 1939, our firm received from Hongkong an inquiry for 15,600 pounds of cinnamic aldehyde and 2,240 pounds of benzyl acetate, which aroused our suspicion. Our laboratories made up mixtures of these two compounds in the ratio given above, which means 87 per cent. cinnamic aldehyde and 13 per cent. benzyl acetate. Analyzing the mixture, we found that it showed normal properties for cassia oil which would test USP, assaying about 87 per cent. cinnamic aldehyde . Using this synthetic mixture as a base, the dealers in Macao or Hongkong could easily mix 20 or 30 parts of it with 70 or 80 parts of crude cassia oil. The finished product would thus contain 2.6 to 3.9 per cent. benzyl acetate. Only by carefully fractionating the non-aldehyde portion of the oil could the presence of benzyl acetate, which is not a natural constituent of cassia oil, be identified. It is, of course, also possible to use up to 60 or 65 per cent. of such a base which would increase the content of benzyl acetate and make for easier detection, but even then it is quite feasible that the benzyl acetate would not be detected in the course of an ordinary routine analysis.

(*Concluded next month*)

Plastic Supplies

(*Continued from page 526*)

for this purpose. Knowing that the material is going into valid end uses will materially insure and allow the continuous manufacture of these products.

8. Those responsible for these controls are cognizant of the industry's desires and need for all possible information on allocation policy and the supply situation of critical material so that permitted end uses may be known with some degree of certainty. This is most important in connection with engineering of new products and equipment construction. It is planned to keep you informed of the various end uses which are currently being supplied and if there are any questions as to the possibility of a certain material being allocated to a new item, it is suggested that you contact the proper section of the Chemicals Branch.

Please understand that we want to make the operation of this order as easy as possible for industry. It is recognized that the control as currently contemplated will largely serve to filter the good existing uses from these which are unjustifiable at this time. In connection with the contemplated new uses, we recognize that the control exercised by such an order may occur at an inopportune time with respect to the procedure involved in designing new war implements as well as substitutions. Therefore, please urge your customers to acquaint you or the War Production Board with new and large uses which may develop into important requirements for phenolic resins.

In summing up, I would like to state that the thermoplastics such as the acrylates, polystyrene and vinyl polymers are in short supply, and it appears that the future uses must be confined mainly to war products. Cellulose acetate and nitrate are relatively free at the moment for the more essential items. Raw materials' supply may cause further restrictions in the future.

The ureas are in fair supply and full allocation does not appear to be necessary for the present. Phenolic resins must be further restricted because of the growing war demands and the shortage of phenol.

A UNIQUE FLEXIBLE SERVICE FOR PAPERBOARD CONVERTERS

Laminated **papers and paperboards give moisture and grease resistance for many food and tobacco conversion packages.**

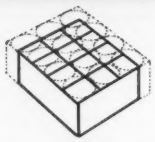
Ridgelo
CLAY COATED
REG. U. S. PAT. OFF.

PROTECTIVE PACKAGING MATERIALS

do these things well-

Coatings **for grease and moisture protection fill a need for packaging certain foods, metallic articles, powdered materials.**

Coating bases **for varnish and other external applications meet the need in "bag-in-box" containers.**



SAVING SPACE

Remember too that rectangular cartons save one-third the space in vital shipping and storage space.

Let us send you samples for trial based on your own requirements. We believe our development work can help you.

★ Ridgelo CLAY COATED ★

BOXBOARDS · CARDBOARDS

MADE AT RIDGEFIELD, N. J., BY LOWE PAPER COMPANY

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MERCHANDISING NEWS and PACKAGING NOTES

THE COSMETIC TREND: News of the sudden revocation of WPB order L-171 came as a surprise to most buyers. They still wait for an indication what OPA wants stores to do about the pricing of Christmas gifts and there is some apprehension that attempts to curtail toilet goods sales have not yet ended.

War workers are making an important contribution to cosmetic sales. Much of this new demand grows from occupational beauty hazards which are new themselves and for which the counters have not always the right answer. It is hoped that cosmetic manufacturers, now with the restrictions removed on the production of novelties, may be able to supply the merchandise that the trade is waiting for. Buyers are conscious of the fact that they may be getting on thin ice in handling the required articles because of their possible remedial slant, but they believe that most of the beauty complaints of war workers are purely mechanical. Anyhow a big market is in the making in this special field and it will grow as thousands of women are entering defense occupations or take to housework in consequence of a growing shortage of domestic help.

No difficulties are expected in dealing with merchandise delivered by manufacturers during the interval between the issue of L-171 and its revocation. Most of it can be absorbed in the regular stock and many buyers may continue to order a smaller number of sizes.

Now, with the improved prospects for obtaining sufficient merchandise, stores may want to go through with earlier plans of widening the sale of cosmetics by distributing them at counters which have suffered as the result of curtailment orders in other fields. This may bring household departments, notions and similar sections of the store into the picture. Cosmetic utilities will benefit most from this development and manufacturers will do well to watch the experiment.

It is, of course, understood that the ending of the Limitation order has not lifted all restrictions upon the manufacture of cosmetics. However, stores have confidence into the ability of the cosmetic industry to replace restricted materials by substitutes and believe that the use of substitutes will not hamper the counters. Women are not at all adverse to change. Telling the customer that a substitute is employed instead of a critical war material is in fact a very excellent argument to combat the incipient hostility of some women against the purchase of cosmetics because of an ill directed impulse to conserve war-essential raw materials.

CONTAINERS WITHOUT CLOSURES: We have an interesting letter from L. Baron of Victor Metal Products Corp. who holds, if we interpret him correctly, that in standardizing glass containers, the government has failed to consider the entire picture which in this case includes closures. His claim is that production facilities for making molded closures are going to waste because glass containers are being standardized in just a few sizes. He proposes that designs be standardized but that finishes vary so that closure production might be spread through all sizes. But here is Mr. Baron's letter in full:

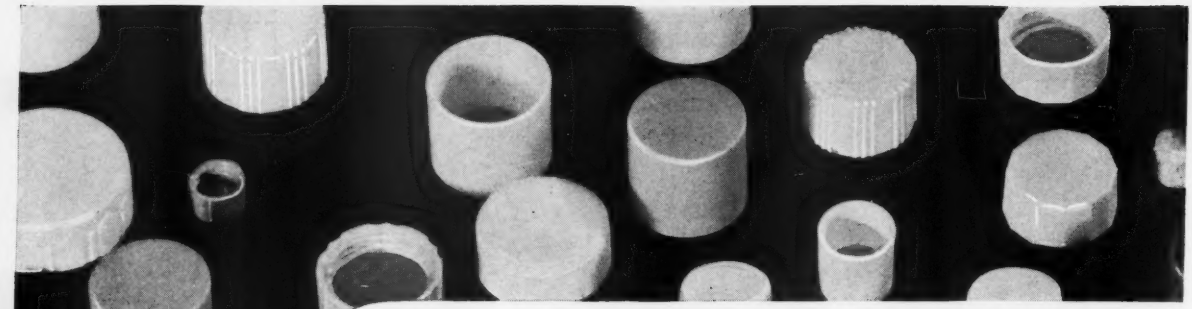
"Most glass container production has now been concentrated in 18mm., 22mm., and 28mm. sizes. The War Production Board has encouraged this concentration as a means of simplifying production problems. At the same time restrictions on the use of metal closures have become increasingly rigid as the metal situation becomes more critical.

"The best available substitute to replace the metal closures would be plastics. The plastics industry, however, has been developed up to the present time in accordance with the particular needs of packages using a molded finish.

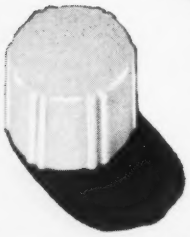
"In the plastics field there are production facilities available for a large quantity of molded closures in an assortment of millimeter finishes other than those used by liquors and drugs. There does not seem to be any possibility that a sufficient plastic cap production can be developed or new tooling created to supply the needs of former metal cap users unless these facilities are made use of in all of the standard finishes and not concentrated in just a few.

"If the finishes in some of these industries using, let us say, 28 mm. could be changed, a vast additional quantity of moulded cap production would become available. We believe that changing the thread portion of the glass is, in most cases, a simple process. Or, it might be possible to standardize on container design but, at the same time, give a variation in finish which would spread the productive equipment available on plastics over a host of sizes.

"The above is a very rough outline of trends which appear to be developing due to restrictive government regulations. A further discussion of this specific problem with glass people and the users of closures in the drug and cosmetic fields, should be helpful in forming a well-rounded opinion in connection with this problem."



Plaskon Offers a *Quick, Adequate, Economical* Supply of Serviceable Closure Materials



To meet modern closure production needs, Plaskon now offers a new range of urea-formaldehyde plastics!

They supply a variety of advantages designed to simplify today's packaging problems in a wide range of industries.

These versatile closure materials include colorful Plaskon and Plaskon Grade 2 Molding Compounds.

Because of their excellent molding properties, these thermo-setting materials permit the rapid, economical production of serviceable closures for almost any need.

Supplied in granular form, Plaskon and Plaskon Grade 2 Molding Compounds are transformed by the compression process into closures of any desired shape and design. Plaskon Molding Compound offers a complete range of colors from jet black to pure white. Plaskon Grade 2 Molding Compound is furnished in only one shade of black and brown.

Closures made from these two Plaskon materials are non-bleeding *in,* and completely resistant *to,* alcohol, acetone, and other common organic solvents. They are unaffected by oils and fats, and are odorless, tasteless and inert. The attractive appearance of the package and the safety of its contents is guaranteed, because Plaskon materials will not chip, flake, rust or tarnish. The closures are easy to put on, easy to remove.

The use of regular Plaskon and Plaskon Grade 2 Molding Compound is regulated by General Preference Order M-25, and ample supplies still are available for closures of essential civilian products.

Our experienced technical men will be glad to work with you on any closure problem you may have. Plaskon Company, Incorporated, 2110 Sylvan Avenue, Toledo, Ohio. Canadian Agent: Canadian Industries, Limited, Montreal, P. Q.

PLASKON

TRADE MARK REGISTERED

MOLDED COLOR

BLOWN PLASTIC BOTTLES: We were going to show you a picture here of a plastic bottle but the trouble was that the picture looked like that of any glass bottle. However, we wish we could show a picture of it hitting the floor—that would really impress you.

Yes, plastic bottles are really in production but, like so many other things, the army is interested and has first call. The army is chiefly interested because of the light weight of the plastic bottle—the one we have weighs about 1½ ounces and its an 8-ounce size—and the possibilities for using them in shipments of medicinals and other things by air. At present these bottles may be made from cellulose acetate, cellulose acetate butyrate, ethyl cellulose, polystyrene, and vinylite and study is being made of materials which might be packed in those plastics.

NEW PERFUME: The introduction of a new perfume these days is really big news, and especially so when the creator hasn't advanced any for many a year. It is Prince Matchabelli, Inc., who comes to the fore with a gala new fragrance dramatically christened "Stradivari." The lovely perfume in its frosted and gilt crown bottles which distinguish all Matchabelli perfumes, carries the name easily and well. Stradivari ranges in price from $6.50 to $25, and has been released in time for Christmas selling.

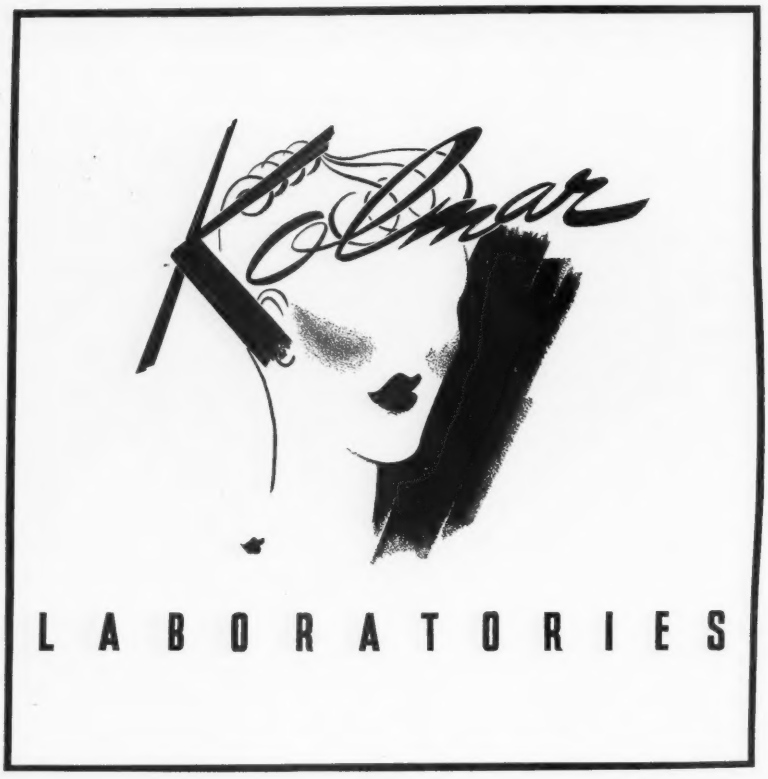
HOUSEHOLD LOTION: Triple Check Labs. has introduced "Triple Check" which is described as a new household lotion. The interesting and somewhat amusing feature of this household lotion is that it puts itself on a very high plane as such, since it sells for six ounces at $1.50 and sixteen ounces at $3. Pretty high priced stuff! However, the packaging follows through in high style giving it somewhat of the glamor angle, even though the lotion itself is recommended for such unglamorous things as tired feet, perspiration, skin irritations, etc. The lotion is packed in a most practical fashion so that it may be carried along in the garden, on picnics, on the beach, on travels, as well as used in the house, the kitchen and the nursery.

PRIORITY-INSPIRED CONTAINERS: Lentheric's men's sets this season are worthy of note. Finished in a natural wood grain cover paper, the boxes are crested and bevelled and lined with a gold-tone paper. Most of the sets feature one or more of the new priority-inspired wooden containers for shaving-stick, after shave powder and shaving soap. Prices range from $1.65 to $4.85. The containers are so attractive there is no impulse to mourn for the old ones—matter of fact—it becomes difficult to remember what the pre-priority ones looked like.

PLASTIC ROUGE BOX: Harry Broder, New York, well known for his all-plastic lipstick containers in both the swivel and the push-up models, announces that he now has developed an all-plastic rouge box with mill-edged base and wedge lock closure. The box, 1⅞ inches in diameter, is available in all colors and color combinations for immediate delivery.

TRAGEDY OF TIMING: If you have tears, prepare to shed them now for McKesson & Robbins. Since time immemorial the McKesson dry line has been packaged in cannisters, cannisters which did not even use metal ends if memory serves us right. About a year ago, however, the company decided that the dry line would sell better if it were dressed up in a handsomer package. So they went to a good looking glass container with a wide mouth and a nice, large lithographed metal cap.

Now, just about the time when the line is all nicely launched and the research boys have reported that it outsells the old package 7 to 1, the heat is on to save all metal and get away from metal caps whenever possible. Even products hard to hold are experimenting with all types of closures so that they can get away from metal and right and left people are rushing to cannisters and other paper containers as fast as possible. Now all that's needed to complete the cycle is for McKesson to come out with a new cannister package for the dry line which would outsell the present package 7 to 1.



More Uniform Particle Size

Perfect Color Distribution

Non-powdery Appearance

Stays On

Over 100 Shades Available

In the laboratories
of the industry

Kolmar's Face Powder

has successfully met every exacting requirement.

It will also meet YOUR requirements!

Kolmar's Face Powder is produced by the original hi-air pressure method. It is available in bulk, or packaged to your needs. Write for samples and quotations.

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Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 2504 Alton Road, N. W., Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 1260 N. Western Ave., Los Angeles, Cal.
Mr. Richard F. Spicker, 419 West Fifth Street, Cincinnati, Ohio

Milwaukee · Newark

E. R. SQUIBB

The entire line of E. R. Squibb & Sons dry packs has been repackaged in cardboard containers to help save metals for war purposes. In appearance, the new containers are almost identical with the former metal ones—same colors, same label, same design. Made of especially treated paper, they are lined with chipboard and the product itself is sealed in a waxpaper or cellophane bag. This arrangement makes the packages dirt-proof, moisture and vapor resistant, and gives protection against light and heat. Light in weight, the new Squibb containers are easy to handle both in the store and in the home.

E. R. SQUIBB

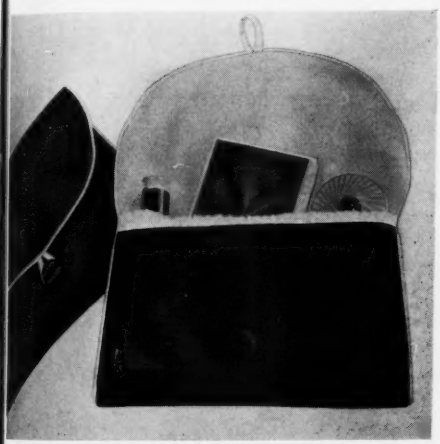
HARRIET HUBBARD AYER

Harriet Hubbard Ayer offers newly designed packages for its Pink Clover line. Pink Clover, the clear scent of clover fields, now comes in charming clover spangled packages. The one illustrated is a combination of bath powder and cologne in a cleverly designed gift box.

HARRIET HUBBARD AYER

TANGEE

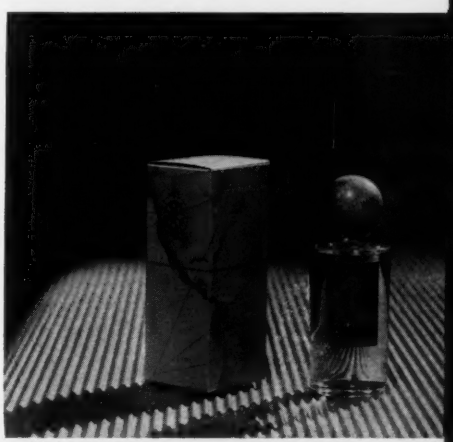
The Tangee "Trip-Kit" illustrated shows Tangee's lipstick, rouge compact and loose powder compact, all packed in a neat envelope type case of brown, blue, burgundy or black celanese material.



TANGEE

PARFUM MONEAU

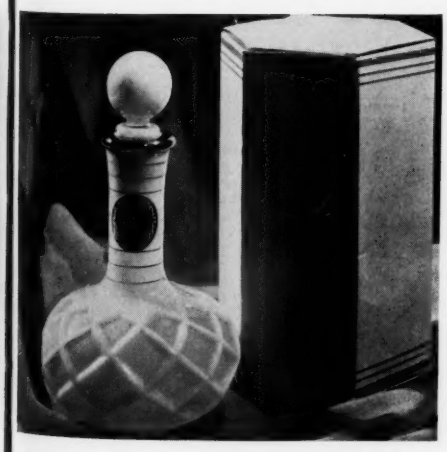
Parfum Moneau presents "Discovery", a concentrated cologne which comes in three and six ounce sizes. The cylindrical bottle which holds Discovery is topped with a large wooden stopper, and the carton which holds it is white with the map of the world embossed upon it.



PARFUM MONEAU

ALLEN B. WRISLEY

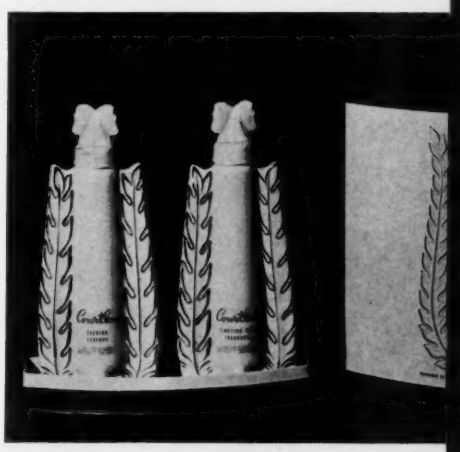
White Flower Cologne is a new package and fragrance by Wrisley. The graceful bottle has an embossed opal lattice pattern and is topped with opal ball stopper. Delicate gold bands encircle the neck and are complemented by medallion label. Individually packaged. White Flower cologne is a floral fragrance with overtones of green-growing leaves.



ALLEN B. WRISLEY

COURTLEY

Courtley's "For Her" gift set, consisting of essence and floating bath fragrance, is available in three colors, each representing a different grade of scent. Pink holds a delicate fragrance for morning; green, a slightly stronger scent for afternoon; white, an alluring fragrance for evening wear. Available singly in attractive gift boxes.



COURTLEY

SAVE TIN...

HELP THE GOVERNMENT AND YOURSELF, TOO!

IN line with the program for the conservation of vital metals, the latest government Tin Order M-115 forbids the manufacture of pile pipes from tin.

Once plentiful tin pipes used by ointment manufacturers come under this order. A nozzle will be necessary, of course, but yet a last-minute, slip-shod substitute only forecasts sales chaos.

Rather than use just a *poor substitute* —REPLACE tin pipes NOW with a comparable and better product—

VICTOR'S Molded Plastic Pile Pipes

recognized as the perfect applicator for rectal ointment by such leaders in the industry as McKesson & Robbins, Inc.

• • •

- **MOLDED PILE PIPES** by Victor Metal Products are precision-machined which assures smooth, polished, perfect nozzles.
- **CAP THREADS** fit tube tightly eliminating messy leakage.
- **PIPE STEMS** are designed to give maximum ointment distribution with minimum strain.

• • •

Help save tin to win. Replace tin pipes NOW with molded pipes. Send today for samples and prices.

STYLE A
Standard No. 16 Opening
The perfect pipe, designed exactly to fit product's needs. Four or eight hole type to suit your product.

STYLE B
Standard No. 12 Opening
This flange-style pipe is available in four or eight hole type, to suit your product.

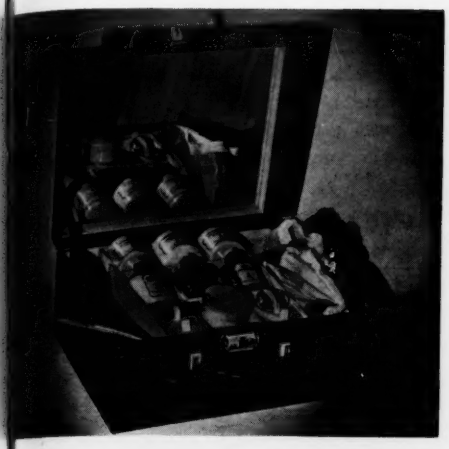
MOLDING DIVISION

VICTOR METAL PRODUCTS CORP.

200 Diamond Street, Brooklyn, N. Y.

PRIMROSE HOUSE

Primrose House new travel case has been designed by active women. Women active in war work, women who travel to temporary military quarters, all contributed to the designing of the travel case. Primrose House therefore offers it as a composite of what most active women want: It is light in weight; contains only the necessary beauty items; has full size mirror in lid; has room for night dress, etc.; has envelopes for tissues and soap; is durable and smart.



PRIMROSE HOUSE

LEDERLE

Lederle announces new ointments and solution of Sulfadiazine for topical use. Successful use of Sulfadiazine for local application in burns has put the spotlight on Lederle's four new products of this famous sulfonamide: Sulfadiazine in Ethanolamines Solution (Pickrell) Lederle; Sulfadiazine Ointment 5% Lederle, Sulfadiazine-Tannic Acid Jelly Lederle, and Sulfadiazine surgical powder Lederle.

LEDERLE

DERMETICS

Dermetics has packaged its automatic powder puff and its twin-sister, a velvet-puff-rouge-applier, both self-acting, in an attractive box for gift giving. The rouge applicator comes in three shades, and the powder puff can be purchased in six skin-tone colors. Both the powder and the rouge sift through the velvet puffs and are convenient to carry.

DERMETICS

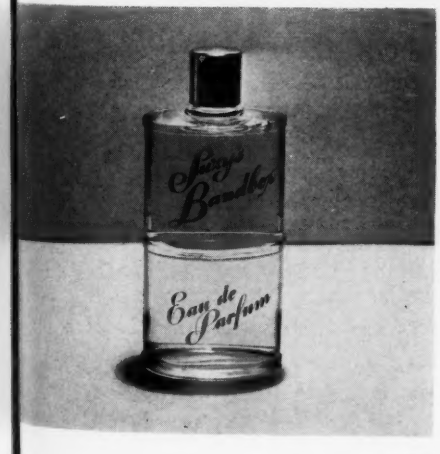
KATHLEEN MARY QUINLAN

Kathleen Mary Quinlan presents a gay, new freshen-up kit, the "Fly by Night." One combination comes for the dry skin, and another consists of the special formula preparations for the supersensitive dry skin.

KATHLEEN MARY QUINLAN

SUZY

Suzy introduces eau de parfum in a new fragrance called "Bandbox." This intriguing fragrance is in somewhat lighter vein than Suzy's Ecarlate and Golden Laughter eau de parfums. The four ounce bottle of Bandbox is attractively packaged for gift giving.



SUZY

MINIPOO

Minipoo, the dry shampoo that whisks away all trace of dirt and excess oil without disturbing the coiffure, now comes in a new, more compact, more streamlined packaging unit. The pink-and-blue sifter-top container and terry mitt are efficiently paired in a pink-and-blue box that facilitates stacking and display.

MINIPOO

GREASE IMPERVIOUS PAPER BOXES: Randolph Paper Box Co., Richmond, Va., has developed what it calls a grease impervious paper box which is now being used by the armed forces for dispensing ointments. Although Randolph says that this container was first produced in 1876, it has of course been considerably improved and now has an outside covering of parchment paper supplementing the grease impervious chemical compound which coats the inside of the box.

The Randolph Company has found that, "up to the present time, no paper package can be rendered impervious to both water and grease in the same degree; but this improved box can successfully package substances which have a water content of up to five per cent. It is made in four sizes, ranging from one-half ounce to four ounces."

SUBSTITUTE CONTAINERS: The Office of War Information, along with its many other duties, is making a photographic record of the substitutes which are being developed in all fields as the war makes replacement of critical materials necessary. Among its photographs of substitute packages is this old type metal container for J & J's baby powder alongside a new fiber package. The legend on the top of the fiber package reads, "Turn head to holes—then perforate."

While we're on the subject, it behooves everyone to concentrate on substitute containers. All metals are on the critical list and both plastic and paper may be increasingly tight. The containers branch of the WPB is said to be looking over cosmetic containers and a simplification order similar to that covering food and beverages may be on the way. Anyhow, the WPB is emphasizing the need for research in the container field for it feels that "the proportion of containers still made of critical materials is considerably in excess of what it should be in the light of present military demands for these materials."

This industry has already made many changes. You all know about the blue bottles and the shaving creams in jars instead of tin or in plastic tubes instead of tin tubes. Colgate's shaving cream stick has already been shipped to the trade in a paper container instead of metal and Colgate's tooth powder and talcum powder will soon be coming through in new paper containers. Mennen, too, will soon be using a fibre board can for talcums and "Quisanna." Squibb's dry household line is now in paper board instead of tin and the aspirin will follow suit as soon as the present stock of tin containers is exhausted. Yardley's men's talc has gone from aluminum to plastic while they expect that their lipsticks will be in paper within a few months and that their talcums will also be in processed paper. These, of course, are by no means all the coming changes for practically everyone is busy cooking up paper and wood and plastic surprises.

PAPER CLOSURE: For the nearby picture of the Floré waving fluid with its paper closure and for the following letter, we are indebted to Julius Braun of the W. Braun Co., Chicago, who writes, "I thought you might be interested in what we believe to be the first successful application of the paper cap finish in cosmetics. With their experience in the milk bottle field, which dates back I believe three-quarters of a century, the J. T. & A. Hamilton Company of Pittsburgh not only successfully developed this finish for other than dairy products, but were, I believe, the first to feature this finish."

"We introduced this package a couple of months ago in this market where we represent the J. T. & A. Hamilton Company, but wanted to make certain it was a successful closure. We can now confidently state that it is not only a successful closure, but in some ways is more satisfactory than the screw cap that it replaced. For close margin products such as petrolatum and wave set, our customers find that they can apply the paper cap faster than the screw cap. We hope that you can give this a little publicity, giving credit to the customer, Cross Drug Company; the manufacturer, J. T. & A. Hamilton Company; and the sales agents and distributors, W. Braun Company."

NEWS

Associations

Flanagan Named A.D.M.A. Counsel

James G. Flanagan, secretary and general counsel of S. B. Penick & Co., has been appointed acting general counsel of the American Drug Manufacturers' Association. He succeeds Leslie D. Harrop, general counsel for the Upjohn Co., who has accepted a commission as lieutenant colonel in the U. S. Army, and who has been granted a leave of absence for the duration.

Mr. Flanagan is a graduate of Columbia University and the Cornell Law

JAMES G. FLANAGAN

School, and is a member of the New York State and Federal Bar. After receiving his B.S. degree from Columbia, he worked for several years as a reporter on leading New York newspapers before returning to college for his legal education. He served in the U. S. Army for a year and a half in World War I and, thereafter, continued as a Field Artillery Reserve Officer for over ten years.

Immediately prior to joining S. B. Penick & Co. in January 1938, he had been an assistant for several years in the Attorney General's Office of New York State.

Mr. Flanagan's new connection will not change his association with S. B. Penick & Co.

A.P.M.A. Midyear Meeting

Inasmuch as the government has indicated its approval of association conventions which result in increased efficiency and preparedness in an industry directly connected with the war effort or with an essential civilian need, the American Pharmaceutical Manufacturers' Association has made arrangements to hold its annual midyear meeting at the Waldorf-Astoria, New York, December 7 and 8.

A tentative program calls for the Report of the Research Committee, Monday morning; presentation of annual award with addresses by leaders in the field in which the award is given, Monday afternoon. Tuesday morning the convention will be addressed by speakers representing many of the essential government bureaus located in Washington. Tuesday afternoon will be devoted to the address by Charles Wesley Dunn, general counsel of the association.

Clough Talks on Chemicals

S. DeWitt Clough, president of Abbott Laboratories, North Chicago, Ill., was the guest speaker at a meeting of the Associated Drug and Chemical Industries of Missouri held October 14 in the University Club, St. Louis. He discussed the importance of chemicals in modern warfare. Dr. J. S. Brewer, Sayman Products Co., president of the association, presided and gave a brief report on the convention of the Federal Wholesale Druggists Association.

C. W. Godefroy, Godefroy Manufacturing Co., suggested that members of the association write or wire Governor Donnell, urging the abandonment of the present Missouri sales tax tokens because of the quantity of zinc used in their manufacture.

Harrop Now Lt. Colonel

Leslie D. Harrop of the Upjohn Co. and general counsel of the American Drug Manufacturers' Association, has

LESLIE D. HARROP

been commissioned a lieutenant-colonel in the Army. He has been assigned to the commodity division of the Army and Navy Munitions Board. Colonel Harrop will concern himself with the drug problems of the armed forces as they come before the drug section of the Chemicals Division of the WPB.

Dahl Talks to Pharmacists

The regular meeting of the New York Branch of the American Pharmaceutical Association was held November 9 at Columbia University, College of Pharmacy, New York. R. J. Dahl, endocrine development department of E. R. Squibb & Sons, spoke to the meeting on "Follutein and Anterior Pituitary Extract." The new process of manufacture

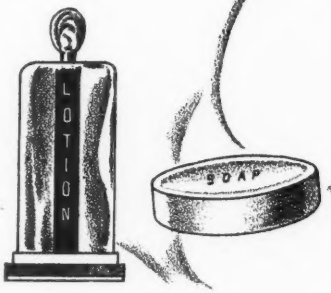
Despite the handicaps of raw material shortages substitutions, etc., our customers are still being supplied with

PERFUMES

for

EVERY PURPOSE

Write us fully concerning your requirements



ORBIS

PRODUCTS CORPORATION

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Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss

and development of the extract and its final appearance as a medicinal in the hands of the pharmacist and the practician were discussed.

Furman Named to Head CSA

Gerald S. Furman, manager of the New York office of Merck & Co., Rahway, N. J., has been nominated for the presidency of the Salesmen's Association of the American Chemical Industry. Mr. Furman has been vice-president of the association for the past year and as president would succeed C. O. Lind, Dow Chemical Co., whose term of office expires at the close of 1942. Other nominations are: Phil LoBue, Michigan Chemical Co., for vice-president; Frank Fanning, N. I. Malmstrom & Co., for treasurer; and Charles A. Alexander, Seldner & Enequist Inc., for secretary.

Mr. Furman became manager of the New York Merck office in July 1941, after having been assistant manager for three years. He has been associated with Merck & Co. since 1921. He started in the pricing department and in 1927 was assigned to the Montreal branch. After seven months there, he was transferred to the Rahway office and later became a member of the industrial sales department. He then was assistant to G. A. Beauchamp for several years, in charge of sales to pharmaceutical, proprietary and cosmetic customers. He became assistant manager of the New York office in 1936.

Griffith With Government

M. D. Griffith, executive vice-president of the New York Board of Trade, has been granted a leave of absence to handle a special assignment for the War Department. The leave was granted at the request of Sidney J. Weinberg, assistant to Donald Nelson. Mr. Griffith will be located in Washington on a temporary basis until December 15.

He has been the executive vice-president of the Board for the past fifteen years. During his absence, John C. Ostrom has been appointed active executive vice-president. Mr. Ostrom will also continue in his present post as secretary of the Drug, Chemical and Allied Trades Section.

Phila. College Elects

At the semi-annual meeting of the members of the Philadelphia College of Pharmacy and Science, four trustees were reelected to serve for three more years. They are: George F. Applin, in charge of the Philadelphia office of Mallinckrodt Chemical Works; Dr. George D. Beal, assistant director of the Mellon Institute of Industrial Research, Pittsburgh; Dr. Lewis C. Scheffey, Philadelphia physician; and J. S. Zinsser, president of Sharp & Dohme, Inc., Philadelphia.

N. Y. Trade Board Committee

Percy C. Magnus, president of the New York Board of Trade, at the direction of the board of directors, has appointed a three-member committee on public relations. George E. Shea, Jr. of Barron's is chairman and the other members are P. Wesley Combs, Jr., of Wm. Esty & Co., and Sidney Matthew Weiss of A. W. Lewin Co., Inc.

Schlotterer Receives Certificate

At the convention of the American Trade Association Executives, held at the Hotel Pennsylvania, New York, November 5 and 6, the drug industry was honored when Ray C. Schlotterer, secretary of the Federal Wholesale Druggists' Association, was one of eight trade association secretaries, given the certificate of the National Institute for Commercial and Trade Organization Executives.

The Institute is sponsored by the U. S. Chamber of Commerce, the National Association of Commercial Organization Secretaries, the American Trade Association Executives, and Northwestern University. The certificate awarded to Mr. Schlotterer represented a successful completion of the three-year prescribed course of study in trade association management.

Classes are held annually at Northwestern University, Evanston, Ill., with an enrollment numbering more than 200 executives in the trade association field.

Brooks and Mayham Speak

Herman Brooks, president, and S. L. Mayham, secretary of the Toilet Goods' Association, were the guest speakers at a special meeting of the toilet goods industry in the Detroit area held October 14 at the Detroit Leland Hotel by the Allied Drug & Cosmetic Association of Michigan.

Van Winkle on New Drugs

Dr. F. B. Dunbar, associate commissioner of the Food and Drug Administration, has announced that Dr. Walton Van Winkle has been assigned to pass upon the applications for new drugs under the food, drug and cosmetic act. Dr. Van Winkle has been in the drug division of the Food and Drug Administration for a number of years.

Heretofore the work in connection with new drugs has been handled by Dr. H. F. Kennedy, who has resigned to enter private practice in Indianapolis.

Cosmetic Industry Salvage

H. L. Brooks, chairman of the Industry Salvage Drive Committee for the toilet goods industry, has made the second report on the results of this drive. Thus far reports have been received from about 40 per cent. of the total number of companies engaged in the industry and the results are as follows: iron and steel to date: 242,970 pounds, non-ferrous metal, 37,994 pounds; rubber, 1,100 pounds; paper, 256,854 pounds.

People

Wasserscheid Breaks Wrist

August A. Wasserscheid, vice-president of Mallinckrodt Chemical Works, broke his wrist October 23.

Fischbeck Breaks Ankle

Charles Fischbeck, vice-president of P. R. Dreyer, Inc., is laid up with a broken ankle.

Ensign Goldman Recovers

Arthur Goldman, formerly New York sales representative of Standard Synthetics, Inc., who is now an Ensign in the U. S. Navy, was recently laid up in Cuba with an attack of grippe. When last heard from he had pretty well recovered and was enjoying a few days holiday.

Salomon in Officer's School

Richard Salomon, who for two years worked as sales representative for Charles of the Ritz, New York, and for the past six years has been president and general manager, has resigned for the duration and volunteered in the United States Army Volunteer Officers' Candidate School. He is taking his basic training at Camp Crowder, Neosho, Missouri. His duties have been taken over by Robert E. Curran, assistant to the president, and Otto J. Cohen, vice-president and sales manager.

Morgan Joins Forces

Ralph C. Morgan, St. Louis representative of Ungerer & Co., has enlisted in

when something new *must* be added !

Are you having difficulty in obtaining materials for your powder? Snow Top Precipitated Chalk may be the answer . . . Twenty, thirty or forty per cent of Snow Top used as a base in your formula will give surprising results in developing a delightful matt-surface to the face powder when applied to the skin. Besides this excellent ***bloom*** (the opposite of shine), face powders, in which precipitated chalk is used as the perfume absorbent, retain their odour for a longer period of time.

Ample stocks of Snow Top Precipitated Chalk are available for immediate delivery in grades from Super Light to Extra Heavy. Write to our nearest office for samples of the grades in which you are interested.

SNOW TOP

INDUSTRIAL CHEMICAL SALES

DIVISION WEST VIRGINIA PULP & PAPER COMPANY

230 PARK AVENUE, NEW YORK CITY
35 E. WACKER DRIVE, CHICAGO, ILLINOIS
748 PUBLIC LEDGER BLDG., PHILADELPHIA, PA.
844 LEADER BLDG., CLEVELAND, OHIO.

the U. S. naval forces and is undergoing training at the University of Ohio for a commission.

The Clifford L. Iorns Co., St. Louis, has been appointed Ungerer representative for that territory as of November 1. The office is under the management of Victor L. Roberson and he is assisted by Miss H. Chlanda who was formerly associated with the late Clifford L. Iorns.

Davis Joins Coast Guard

Peter E. Davis, assistant sales manager of Ansbacher-Siegle Corp., has

P. E. DAVIS

entered the U. S. Coast Guard as ensign and is undergoing a period of indoctrination at St. Augustine, Fla.

Merner Commissioned

Ward P. Merner, manager of the creative department of Richmond Hudnut, has been commissioned as a first lieutenant in the Army Air Force. Mr. Merner is now at Miami Beach for officer's training.

Sanders Commissioned First Lieutenant

Ray Sanders, assistant sales manager of the wholesale division of the Hudnut Sales Co., New York, for the past two years, has been commissioned a first lieutenant in the United States Army Air Force. He is now stationed at Miami, Fla.

Marc See Joins Army

Marc See, for the past two years president of Doraldina Cosmetics, Inc., and Couturiers Perfumes, Inc., has taken a leave of absence for the duration. He has joined the Artillery Division of the U. S. Army at Fort Devens, Mass., as a private. At one time Mr. See was general manager of the Charles of the Ritz European business, with headquarters in Paris. In the last war, he was a first lieutenant in the Artillery of the French Army, and was slated to be a captain when France fell.

Companies

Mennen Appoints Jorda

The Mennen Co. has appointed Joseph Jorda manager of foreign sales and advertising. In this position he succeeds Oliver Shaw who resigned to become foreign trade consultant for the Alien Property Custodian. Mr. Jorda joined Mennen as assistant export manager in 1938. For the nine years previous to that he had been assistant export manager for Gillette Safety Razor Co. and before that was with Autostrop Safety Razor Co.

Miles Advances Shupert

P. L. Shupert has been made assistant sales manager of Miles Laboratories, Elkhart, Ind. He has been associated with the company since 1933 and for the past nine years has been sales manager of the Chicago district.

Naugatuck in Canada

Naugatuck Aromatics, division of United States Rubber Co., has announced the appointment of Naugatuck Chemicals Limited, of Elmira, Ontario, its representative in Canada. R. M. Ferguson, sales manager of Naugatuck Chemicals Limited, will call on Canadian customers and a stock of merchandise is being kept in Elmira for prompt service to the clientele.

American Home Buys Harmon Color

Negotiations are under way for the amalgamation of American Home Products Corp., Jersey City, and Harmon Color Works, East Paterson, N. J. This would give to American Home Products plant facilities for the production of "sulfa drugs" and other synthetic organic medicinal chemicals.

Official Compendia Changes

In view of the revisions in the U. S. P. XII and the N. F. VII, Mallinckrodt Chemical Works has prepared a booklet in abstract form which includes all such changes. It lists all items which appear in the new editions under their official English titles and also lists all items which appear in the U. S. P. XI or N. F. VI but which are omitted or transferred in the present compendia. In addition, there is an abstract of changes in general tests, processes and apparatus for both the U. S. P. XII and N. F. VII.

It is suggested that the booklet may be employed as a handy reference guide to users of the U. S. P. XII and N. F. VII. Copies of "Abstract of Changes and Additions in the U. S. P. XII and N. F. VII" are available upon request.

Mitchell—White Sales Mgr.

Vernon C. Mitchell has been appointed general sales manager of White Laboratories, Inc., Newark, N. J. For the past ten years Mr. Mitchell has been district sales manager of Eli Lilly & Co. Lee B. Pinkerton has been made eastern sales manager by White Laboratories and E. B. Ray is now the western sales manager.

Standard Alcohol Interest Bought

Standard Oil Company of New Jersey has purchased from National Distillers Products Corp. its interest in Standard Alcohol Co., a concern in which New Jersey Standard already held a controlling position.

At the end of 1941 Standard Oil was listed as owner of 65 per cent of the 70,000 common capital shares of Standard Alcohol, and National Distillers as holder of the remaining 35 per cent. In announcing the purchase Standard Oil described the alcohol unit as "another important link" in the company's growing chemical business based on petroleum as the raw material. Standard Alcohol's manufacturing plant is at Linden, N. J. and another large plant is under construction in the South and will be in operation soon.

The officers of Standard Alcohol are: M. B. Hopkins, president; H. W. Fisher and James G. Park, vice-president; M. H. Eames, secretary, and J. E. Crane, treasurer.

Hindle Travels West

J. L. Hindle, vice-president of Standard Synthetics, Inc., is taking a Western trip spending some time in Chicago, and then spending several days at Kansas City with Richard Remus, office manager of the firm's branch in that city.

Squibb Adds Directors

George H. Sibley and Clarence M. VanKirk have been elected additional directors of E. R. Squibb & Sons. Other members of the board were reelected. Mr. Sibley has been general attorney for the company and its domestic subsid-

iaries since 1937 and Mr. VanKirk, recently elected a vice-president of the company in charge of distribution, has been in the employ of the company since 1926.

The newly constituted board of directors reelected as chairman and chief executive officer of the company, Carleton H. Palmer, and as president of the company Lowell P. Weicker, on leave of absence in foreign service as a major in the United States Army Air Corps, and J. N. Staples as senior vice-president and treasurer.

Other principal officers reelected were: Dr. John F. Anderson, R. D. Keim, Ferdinand W. Nitarcy and Clarence M. VanKirk, vice-presidents; James C. Lewis, secretary and Charles S. Gage, assistant secretary.

Abbott Study Club

With the largest enrollment in its eleven years and with a greater number of courses than ever before, the Abbott Study Club, sponsored by Abbott Laboratories at North Chicago, Ill., for all employees, began its new season the middle of October.

Classes are given in shorthand and typing, advanced comptometry, business law, accounting, Spanish, first aid, home nursing, knitting, electricity, and personality development. With the assistance of instructors from the Illinois Institute of Technology, there will also be classes in production planning and in personnel selection and training.

In addition to classes the club has planned an entertainment program which opened with a dance October 6. Commander Eddie Peabody and his Great Lakes Naval Training Station orchestra furnished the music and a special program of entertainment.

Standard Synthetics Imitations

Standard Synthetics, Inc., New York, has been producing many imitation products to replace scarce natural products. Among these are Imitation Oil Cassia, Imitation Oil Bergamot, Imitation Oil Cinnamon, Imitation Oil Citronella, Java, Imitation Oil Geranium, Imitation Oil Lavender, Imitation Oil Lemongrass, Imitation Oil Peppermint, and Imitation Oil Sassafras.

Wheelco Bulletin

A new six-page bulletin, interpreting the recently amended WPB Conservation Order L-134 as it applies to use of thermocouples and thermocouple protecting tubes for pyrometric instruments, has been issued by Wheelco Instruments Co., Chicago.

The bulletin, a supplement to the company's Thermocouple Data Book S2-3, recommends thermocouples and tubes that will serve in place of materials prohibited by the WPB order. Recommendations cover thermocouple materials for new installations in temperature ranges where chromium and nickel alloys are now prohibited; substitutions for radiation head target tubes of materials now prohibited; protecting tubes to replace chromium and nickel tubes, now permitted only in a limited number of applications, and recommendations for lead wire to replace chromium and nickel alloy wires of certain gauges now prohibited or restricted.

Copies of the bulletin are available upon request.

U. S. Industrial To Build

United States Industrial Chemical Co., Newark, N. J., has awarded the contract for the construction of a three-story and basement mill and dryer building at its plant there. With equipment the new addition will cost over $50,000.

Cinchona in Pneumonia

Mellon Institute, Pittsburgh, is distributing a publication entitled, "Structure and Antipneumococcic Activity in the Cinchona Series." Copies will be sent gratis to interested specialists who request them.

Tweedie Joins Com. Solvents

Virgil Tweedie has joined the research staff of Commercial Solvents at Terre Haute, Ind. He received his B. S. degree from the University of Missouri. Before assuming his present position Mr. Tweedie had been doing graduate work at that university.

Esther Engle Joins Commercial

Esther A. Engle has accepted a position with the technical service division of Commercial Solvents Corp., Terre Haute, Ind. The duties of this division include the introduction of the company's new products and the preparation of technical literature and advertising.

Before joining Commercial Solvents Miss Engle was head of the chemistry department of Cedar Crest College, Allentown, Pa., a position she had occupied for the past fourteen years. She was also chairman of the Lehigh Valley Section of the American Chemical Society. She received an A. B. degree from the University of Illinois, a B. S. from Illinois Wesleyan University, and an M. A. from Columbia University and has done further post-graduate work.

Smith Quits Lederle

Lederle Laboratories, Inc. has announced that Stuart V. Smith, vice-president in charge of sales has resigned. The decision was his own and the company has accepted his resignation with regret.

Mr. Smith started with Lederle as a salesman and was for some years Boston branch manager. He became sales manager in 1935, and vice-president in charge of sales in 1941.

J. Paul Folsom is sales manager of the company.

Aromatics in England

The British factory of Standard Synthetics, Ltd., continues to operate under difficulties due to the shortage of raw materials and shortage of staff. Latest reports from London are to the effect that the British Ministry of Food is going to control most of the prices of essential oils, and quotas will be given to all firms. The selling prices will be controlled even more rigorously than they are in this country, and many essential oil firms are nervous in case this scheme will force them completely out of business. Up to the present there has been no general price fixing arrangement for essential oils and aromatics, with the result that they have risen to enormous heights. Trade is very quiet in Britain with buyers awaiting developments.

Ciba Gets Minute Man Flag

The United States Treasury Department War Savings Staff has presented a Minute Man flag to Ciba Pharmaceutical Co., Summit, N. J., in recognition of more than 95 per cent. participation in the payroll savings plan.

Three divisions of Ciba which had attained a 100 per cent. participation in the payroll savings plan were presented with Minute Man banners by J. J. Brodbeck, executive vice-president and general manager of the company. Ciba's chemical manufacturing department received an individual Minute Man banner with a rosette. The employees of this department are contributing more than 10 per cent. of their total earnings each week. Minute Man banners were

also presented to the office and clerical force and to the maintenance department.

Merck Wins Mail Award

For the fifth successive year, the board of judges of the Direct Mail Advertising Association has selected Merck & Co., Inc., Rahway, N. J., as one of the fifty direct mail leaders of the United States and Canada. This year the company also won the typography plaque awarded by the American Type Founders Corp. for "the best example of modern typography in a direct mail campaign." Douglas Wakefield Coutlee, director of advertising received the two awards at the association s annual meeting held at the Roosevelt Hotel, New York, October 16.

Merkel Joins Colgate

Kenneth W. Merkel is now a perfumer for Colgate-Palmolive-Peet Co., Jersey City, N. J. For the past four years he has been director of the perfume laboratory of George W. Lueders & Co., New York. Before that he had been associated for five years in the manufacture of cosmetics and for seven years with the essential oil business as perfumer and sales manager.

CSC Features New Chemicals

Commercial Solvents will feature "New Chemicals at Work" at their booth at the National Chemical Exposition at Chicago. The display will consist entirely of items which require one of the Nitroparaffins for their manufacture—new types of waterproof textiles, grinding and polishing assistants, dry cleaning soaps, new types of lacquers and dopes, textile dyes, synthetic rubber products, and dozens of other materials. Introduced only a little over two years ago the Nitroparaffins are already serving practically every type of industry.

Taylor to Seek Cinchona

Norman Taylor, director of Cinchona Products Institute, New York, will leave soon for Tropical America to seek further supplies of cinchona bark. The trip, which will take him from southern Mexico to Bolivia, has been authorized by the board of commissioners for the Netherlands East Indies. The chief object is to cooperate in the war effort with governmental agencies and manufacturers so that adequate supplies of cinchona bark may be available.

Norwich Adds Scientists

Norwich Pharmacal Co., Norwich, N. Y., has announced the addition of four members to its research staff.

Floyd W. Hartmann has an Sc. D. degree from the University of Michigan. Franklin L. Austin has a Ph.D. from the University of Minnesota and was recently a post-doctorate fellow at Columbia University. David L. Cramer received a Ph.D. degree from Ohio State University. John H. Coleman has an M. S. degree from Michigan State College and comes to Norwich from Lakeside Laboratories.

Sheldon Fox With American Home

Sheldon Fox is now assistant purchasing agent of American Home Products Corporation, Jersey City. Until recently Mr. Fox was associated with Merck & Co. as a buyer of packaging materials.

Financial

Abbott Profit Off

Abbott Laboratories reports for the nine months to September 30 a net profit of $1,419,763, equal to $1.76 on the common stock. This compares with a net profit of $1,733,025, or $2.24, a common share earned in the same period last year.

American Home Earns More

American Home Products Corp. and subsidiaries report for the nine months to September 30 a net profit of $7,250,588 after all deductions except foreign and federal income and excess profits taxes, against $5,494,219 in the 1941 period. The net after tax provision was $2,848,483, or $3.33 a share which compares with $3,130,549, or $3.87 a share in the first nine months of1941.

Bristol-Myers Net Off

Bristol-Myers Co. and subsidiaries report for the September quarter a net profit, after $1,509,862 provision for Federal income and excess profits, but not including allowance for post-war credits, was $814,685, equal to $1.22 a share. This compares with $315,792, or 47 cents a share, after $1,377,095 provision for Federal taxes in the preceding quarter and with $879,507, or $1.32 a share for the third quarter of 1941.

For the nine months ended with September the net profit after $3,922,876 taxes, was $1,818,589, or $2.72 a share, compared with $2,184,965, or $3.27 a share last year.

Commercial Solvents Net Steady

Commercial Solvents Corp. reports for the nine months to September 30 a net profit of $1,670,927, or 63 cents a share against $1,637,486, or 62 cents a share last year. Federal income and excess profits taxes for 1942 period amounted to $5,511,600, against $1,661,655 in the first nine months of last year.

For the September quarter the consolidated net profit, after $1,693,500 provision for federal income and excess profits taxes based on the Revenue Act of 1942 but without consideration of a post-war credit on excess profits tax, totaled $527,016, equal to 20 cents a share. This compares with the June quarter net of $596,730, or 22 cents a share, after provision of $2,029,300 for federal taxes and with a net profit of $732,504, or 28 cents a share for the September quarter of 1941 when the tax provision was $740,426.

Continental Can Earnings

Continental Can Co. reports for the twelve months ended with September net earnings of $5,353,762, after deducting $7,943,653 for depreciation and estimated income and excess profits taxes. This is equivalent to $1.87 a share and compares with net earnings, after $9,482,191 deduction for depreciation, depletion, and federal taxes, of $7,381,502, or $2.51 a share in the twelve months ended September 30, 1941.

Net earnings for the twelve months ended June 30, 1942, were $6,719,800, or $2.35 a common share.

Coty Net Up

Coty, Inc. and subsidiaries report for the nine months to September 30 a net income, after $634,649 provision for federal income and excess profits taxes, of $501,968. This is equivalent to 34 cents a share on the capital stock outstanding and compares with a net of $472,312, or 32 cents a share for the same period of last year. The report states that the provision for federal income taxes for the 1942 period is made in accordance with the rates appearing in the new tax bill.

Lambert Net Up

Lambert Co. reports for the nine months to September 30 a net profit after federal income taxes in accordance

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A pure, natural Vegetable compound —semi-liquid, mucilaginous, free of objectionable over-adhesiveness. An economical substitute for such bases as Quince Seed, Gum Tragacanth, Irish Moss and Flaxseed for lotions, wave-sets, etc.

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with the recent revenue act of $1,314,506, equal to $1.76 a share, against $1,178,164, or $1.58 a share last year. Before tax deductions the consolidated net profit was estimated at $2,221,127, against $1,707,035.

For the September quarter the estimated consolidated net profit, after including about $73,900 previously provided for federal income taxes in excess of present requirements, was $606,872, or 81 cents a share. Revised estimated consolidated net profit for the third quarter of 1941 was $494,517, or 66 cents a share.

Lehn & Fink Earns Less

Lehn & Fink Products Corp. reports for the September quarter a net profit of $84,511, or 21 cents a share, against $129,292, or 32 cents a share for the September quarter a year ago.

McKesson Net Lower

McKesson & Robbins, Inc., announces for the three months ended September 30, the first quarter of the company's present fiscal year, a consolidated net profit of $693,565, after interest and after provision of $1,974,257 for estimated federal taxes. This is equivalent to 37 cents a share on the common stock and compares with a net profit of $1,352,825, after interest and provision of $992,000 for federal taxes in the three months ended September 30, 1941.

Sales for the quarter totaled $56,019,855 as compared with $50,244,278 in the same period last year.

Monsanto Earnings Lower

Monsanto Chemical Co. reports for the first nine months of 1942 a net income, after provision for income taxes, of $3,978,435, which is equivalent to $2.65 a common share. This amount is inclusive of $710,268, or 57 cents a share, which represents 10 per cent. of excess profits tax which is returnable after the war. Earnings for the corresponding 1941 period amounted to $4,974,189, or $3.57 a share.

Net sales of Monsanto's American companies for the nine month period were $50,269,733, an increase of 7½ per cent. over the similar period of 1941.

Norwich Earnings Steady

Norwich Pharmacal Co. and subsidiary report for the quarter ended September 30, net profit of $249,297 after depreciation and federal taxes. This is equal to .313 per share on the common stock and compares with a net profit of $251,552, or .316 per share in the same quarter of 1941.

Accumulated net profit after taxes and depreciation for the nine months ended September 30 was $537,673, equal to .675 per share and compared with $591,392, or .743 per share for the nine months ended September 30, 1941.

Parke, Davis Earnings

Parke, Davis & Co. reports for the nine months to September 30 a consolidated net profit of $5,128,627, after $5,640,000 provision for United States and foreign income and excess profits taxes and $60,000 reserve for profits not transferred from the British Empire. This is equal to $1.05 a share and compares with the adjusted net for the 1941 period of $5,660,274, or $1.16 a share, after $4,739,842 tax reserve and one of $587,000 for profits not transferred from the British Empire. Provision for United States excess profits taxes for the 1942 period approximates $1,950,000 against $1,475,000 for the similar 1941 period.

Consolidated net profit for the twelve months ended with September was $7,474,815, or $1.53 a share after a $7,400,158 tax reserve and $117,000 credit to reserve for profits not transferred from the British Empire. This compares with earnings of $7,797,737, or $1.59 a share, after $5,643,660 tax reserve and $640,000 reserve for profits not transferred from British Empire in the preceding twelve-month period.

Squibb Earns More

E. R. Squibb & Sons report for the fiscal year ending June 30, 1942, net earnings, after all taxes, of $2,432,386 for the corporation and its domestic and Canadian subsidiaries, compared with $2,200,789 for the previous year. This is equivalent to $5.01 a share for 1942, against $4.05 per share the previous year.

All taxes combined, charged to operations during the fiscal year were $3,441,586 compared with $1,487,124 for the year through June 1941. The United States income and excess profits taxes were computed under the 1941 tax law which applies to companies whose fiscal year ended on or before June 30, 1942, and the Canadian taxes were calculated on the existing law.

Sales during the year were more than 40 per cent. higher than the previous year with two-thirds of the increase traced to civilian business.

U. S. Alcohol Net Down

United States Industrial Alcohol Co. and subsidiaries report for the six months to September 30 a net profit, after $750,000 provision for contingencies, of $418,128, equal to $1.11 a share on the common stock and comparing with $986,072, or $2.62 a share for the corresponding six month period last year, when contingency provision was $250,000.

Provision for federal income taxes for this year's period, based on the Revenue Act of 1942, amounted to $825,000, against $555,337 for six months of last year.

Zonite Net Steady

Zonite Products Corp. and Canadian subsidiaries report for the September quarter a net profit of $90,641, or 11 cents a share, against a net profit of $94,928, or 11 cents a share for the September quarter of 1941 when the British subsidiary was included.

For the nine months to September the profit was $190,666, or 23 cents a share against $165,210, or 20 cents a share including the results of the British subsidiary last year.

Obituaries

Mitchell G. Rosengarten

Mitchell G. Rosengarten, retired member of the Powers-Weightman-Rosengarten Co. which was later merged with Merck & Co., died October 14, in Philadelphia. He was sixty-nine years old.

Frederick D. Whelan

Frederick David Whelan, son of one of the founders of Whelan Drug Co. and a former officer of the company, died of pneumonia at his home in Garden City, N. Y., October 15.

Mr. Whelan was the son of Michael W. Whelan, one of the seven Whelan brothers who founded the drug company in Syracuse, N. Y. He was born in Syracuse and entered the family business as a clerk after his graduation from Seton Hall in 1900. The year after his father's death in 1919 he had advanced to the position of vice-president of the company.

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English Distilled Oils

Stafford Allen & Sons Ltd.,
LONDON, ENGLAND

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LAVENDER
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F.T.C. ACTIVITIES

Orders

Violation of Order

The U. S. Supreme Court has denied the petition of Joseph Piuma for certiorari in which he sought a review of a decision of the Circuit Court of Appeals for the Ninth Circuit (San Francisco) which confirmed civil penalties of $3,250 imposed on him for violations of an order of the Federal Trade Commission.

In 1937 the Commission ordered Piuma to cease false representations of the therapeutic value of "Glendage," sold as a gland tonic. Violations of the order in 13 advertisements were noted and brought before the District Court for the Southern District of California, which imposed penalties of $250 for each violation. The ruling was appealed to the Circuit Court of Appeals for the Ninth Circuit which unanimously affirmed the judgment of the lower court. From this decision the respondent sought certiorari to the U. S. Supreme Court.

Vitamin Creams

Montgomery Ward & Co., Inc., Chicago, has been ordered to cease misrepresentations of cosmetics.

The respondent sells "Double-Vitamin Cold Cream Rich in Vitamins A and D. Use for cleansing skin of dirt, make-up." "SKIN SOFTENING CREAM formerly called Ward's Tissue Cream. Rich in Vitamins A and D. When first signs of age appear—a skin needs massage with a rich Cream like Ward's to provide beneficial lubrication," and "WARD'S CREAMS CONTAIN VITAMINS 'A' AND 'D' Super-fine Creams—doubly rich in vitamins. When made, 1400 U.S.P. Units of Vitamin A and 300 U.S.P. Units of Vitamin D are added to each ounce of cream."

The Commission's findings declare that the respondent's various cosmetic cream preparations will not, because of the addition thereto of vitamins, therapeutically treat or benefit the skin to which the preparations are applied.

The respondent is ordered to cease and desist from representing that any of its cosmetic preparations containing Vitamin A and D have therapeutic value when applied to the skin or have any effect upon the appearance of the skin beyond the emollient, soothing, and cleansing action of ordinary cosmetic cream preparations; that the presence of vitamins A and D in its cosmetic preparations gives them special properties over and above those of ordinary cosmetic creams, or that the use of such creams, because of such vitamin content, will have any beneficial effect in keeping the facial skin firm and smooth or the hands soft, smooth and white, promoting glowing skin, or retarding the appearance of age, and from the use of the words "Tissue Cream" or any other words of similar meaning to describe any cosmetic preparation or representing in any way that the respondent's cosmetic preparations have therapeutic value in treating or nourishing the tissues of the skin.

Chinese Herbs

Edwin Tom, trading as Master Herb Co., Los Angeles, has been ordered to cease the dissemination of any advertisement which represents that the herbs sold constitute a remedy for rheumatism, arthritis or asthma or possess any therapeutic value in the treatment of such conditions in excess of affording temporary relief from the symptoms of pain associated with rheumatism and arthritis and temporary relief from the paroxysms of asthma; or which represents that such herbs possess therapeutic value in the treatment of any other ailments in excess of affording temporary palliative relief from some of the pains or other symptoms which may accompany such disorders.

Other representations ordered discontinued are that the herbs are a remedy for or have any therapeutic value in treatment of stomach ulcers or that their use will renew the glands of the body or enable the user to regain strength or vigor.

Stipulations

Vitamin Claims

Claire L. Specht and Emil J. Specht, trading as Vegetable Juice & Products Co. and Vegetable Products Co., Rochester, N. Y., sellers of "ViVi-Ta Superior Wheat Germ," have stipulated to cease representing that the product will provide users with any significant amount of vitamin A or of the minerals calcium, iron, copper, magnesium or manganese; or that it can be relied upon to prevent colitis, sterility, eye cataracts, or grey hair, or to successfully treat catarrh, arthritis, neuritis, eczema, or anemia, or to stimulate the liver or pancreas, or to strengthen the heart muscles or retard old age, or to normalize calcium metabolism, or improve the condition of the sinus membranes, or the condition of the hair, nails or scalp, or to increase nerve energy, vigor, mental powers, or nerve and muscle tone, or to provide an effective aid during the period of menopause, or to exert a specific nourishing effect upon the nerves or brain; or that it will have any value in cases of constipation, lack of energy, devitalized tissues and glands and ill health except where and to the extent that such conditions may be due to a deficiency of the vitamins found in the product.

Sulfo-Bath

B. G. Pratt Co., New York, selling "Sulfo-Bath," agrees to cease representing that the product is effective for the relief of nervousness, colds, insomnia, pimples, eczema, hives or poison ivy; that it has any effect on rheumatism, neuritis, sciatica, arthritis or lumbago except to the extent that it may relieve the pains of such conditions; that it is "health-giving" or provides or causes radiant health; that it will give one energy; that by use of the product sulphur will be absorbed into the system or that it will give one a healthy or beautiful complexion; that the product relieves or aids in relieving the conditions which cause dandruff, itching scalp or falling hair or that it relieves skin troubles; or that it is effective in severe cases of athlete's foot.

Liquid Chin Strap

Delettrez, Inc., Long Island, N. Y., engaged in selling a cosmetic designated "Liquid Chin Strap," agrees to cease representing that the product will help ward off the appearance of age or greyish surface lines; that it will heighten the arch or sweep of chin lines; that it has a

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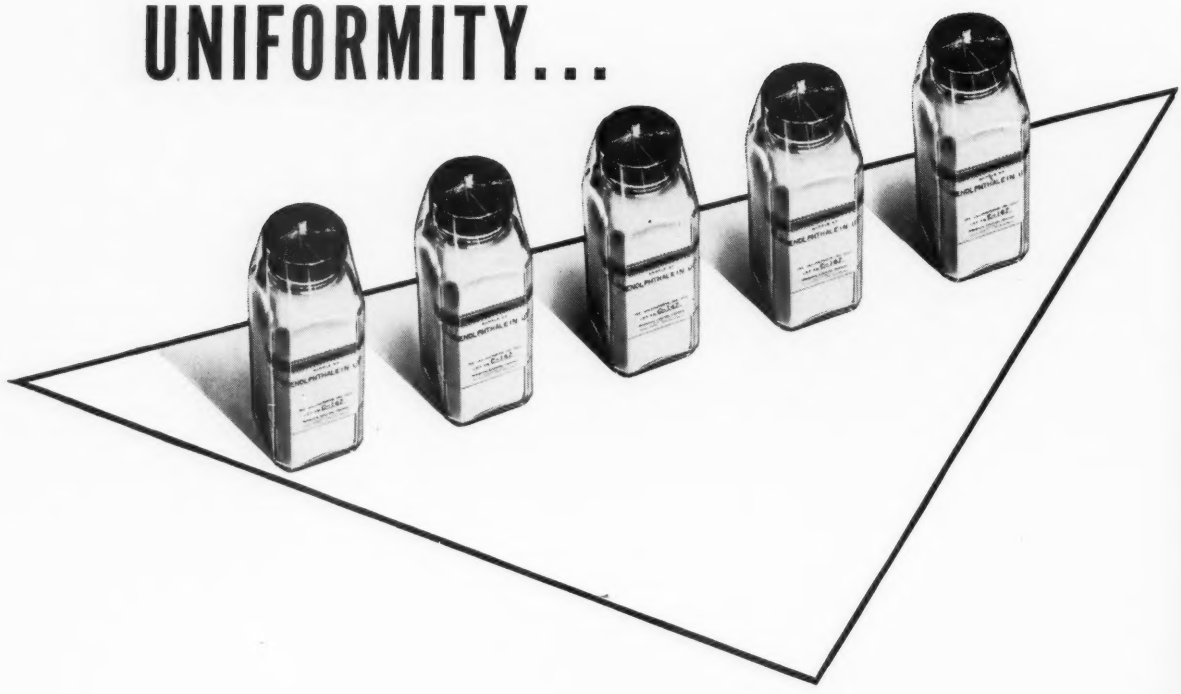

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therapeutic effect on the skin or contour thereof or has a physiological effect in excess of a temporary feeling of an astringent at the site of its application; or that its use will result even in the temporary disappearance of crepy skin.

Delano's Tonic

The Delano Co., Inc., and F. H. Delano, Syracuse, N. Y. selling "Delano's," have stipulated to cease representing that the preparation is a remedy or cure for rheumatism and is a tonic or alterative.

They further agree to cease any advertisement which represents that the preparation, or any other preparation of substantially the same composition or properties sold under the name "Delano's" or any other name, is safe and harmless or which advertisement fails to reveal that the product should not be used when abdominal pains, nausea, vomiting or other symptoms of appendicitis are present; that its frequent or continued use may result in dependence on laxatives, and that the administration of the preparation regularly or over a considerable period of time, unsupervised by a physician, may result in injury to the user.

Dr. Sphinx's Sarsaparilla

C. E. Prescott, trading as Prescott Drug Co., Memphis, Tenn., agrees to cease representing that "Dr. Sphinx's Sarsparilla and Iron with Iodide Potash" is effective in treatment of bad blood, rheumatism, malaria, general rundown condition, or stomach trouble, and is a blood, liver and kidney cleanser. The respondent agrees to discontinue representing by the use of the prefix "Dr." in the brand name that the product is manufactured or offered for sale by a doctor of medicine, and to stop using the word "Sarsaparilla" to refer to any preparation which does not contain sarsaparilla in sufficient quantity to possess therapeutic value.

The respondent further agrees to cease advertisements which fail to reveal that the preparation should not be used by persons suffering from tuberculosis or thyroid diseases or when abdominal pains, nausea or other symptoms of appendicitis are present.

Prunlax

The Adams Laboratories, Inc., St. Louis, agrees to discontinue representing that "Prunlax" is a remedy for constipation, aids in toning up the liver or kidneys, and is effective in the treatment or prevention of backaches, headaches, biliousness, colds, and swollen joints; that it will renew or strengthen lost energy and keep children full of energy; that it arrests colitis or the formation of hemorrhoids or fissures; and that prune juice is the basis of the preparation. The respondent stipulates it will cease representing, through the use of the brand name "Prunlax" alone or with other words or pictorial representation, that the preparation derives its laxative properties from prunes, and agrees to stop using the word "Laboratories" in connection with its business when it does not own, control and direct a laboratory where research work is conducted in connection with the production of its product.

Taylor's Kolnox

Roy E. Phipps, trading as Taylor Drug & Seed Co., and Taylor Drug Co., Bessemer, Ala., selling designated "Taylor's Kolnox Compound," has stipulated to cease representing that the product will aid the system to maintain proper alkaline balance; that it is a cold remedy and will prevent, fight, control or rid one of colds; that it will clear the system of poisons; that it will relieve bad coughs, or have any value with respect thereto in excess of its ability to exert a slight cooling effect on the throat; that it will relieve or ease congestion; or by use of the expression "Kolnox" as part of the brand name of the preparation, or by any other words, that the preparation will cure colds.

Phipps further agrees to cease representing that the preparation will in no case have any deleterious effects or is safe to use in all cases, and to stop disseminating any advertisement which fails to reveal that the preparation should not be used when abdominal pain, nausea, vomiting or other symptoms of appendicitis are present.

Bathritis

James P. Galligan, trading as Bathritis Co., Chicago, selling "Bathritis," agrees to discontinue representing that the product, when used as directed in the bath, has any therapeutic effect in the treatment of rheumatism, neuralgia or other ailments, or, when used as a liniment, is effective in excess of relieving pain; that it relieves sprains, stiffness and swelling or works toward restoring normal active muscular health; that it is effective in comforting inflamed tissues; that it is effective in dispelling body odors, or that it is a new discovery.

Master Vita-Min Labs.

Andre Tempe, trading as Master Vita-Min Laboratories, Chicago, agrees to discontinue misrepresentations of "Dulse-Dene," "Vita-Broth," "Garlo-Min," "Vege-Molen," "Vita-Lax," and "M-7." The respondent agrees to cease.

(1) Representing that only organic compounds of iodine are nutritionally effective; that the administration of iodine preparations will increase immunity to disease or that the use of such a preparation in combination with vitamin A will improve vitality; or that the respondent's product designated "Dulse-Dene" constitutes an adequate treatment for nervousness or arthritis or improves vitality or produces remarkable results in school children.

(2) Representing, by statements such as "The Standard American meals . . . are practically always starving in some minerals or others," that the American dietary is deficient in minerals; or representing that it is impossible to obtain adequate nourishment from the customary articles of diet or that it is impossible to obtain sufficient minerals from various vegetables unless they have been subjected to a special treatment such as is used in preparing the vegetables contained in the respondent's product designated "Vita-Broth."

(3) Representing that the product "Garlo-Min," due to its dried garlic or other content, has any therapeutic effect in the treatment of high blood pressure; that it prevents disease and promotes good health; that it is of any value as a therapeutic agent; or that the use of garlic promotes longevity, detoxifies the colon, soothes the nervous system, or has a favorable influence on arteriosclerosis or high blood pressure.

(4) Representing that either okra or the respondent's product designated "Vege-Molen" is an effective treatment or competent remedy for stomach ulcers, duodenal ulcers, colitis, chronic constipation, hemorrhoids or acid stomach, or that cancer generally results from colon irritation.

(5) Representing that the product designated "Vita-Lax" prevents hyperacidity, toxemia, or intestinal putrefaction, or that it is free from drugs and is not habit forming.

(6) Representing that vitamin A can be depended upon as anti-infective, to promote healthy skin and normal eyesight and to build resistance against colds and infections; that vitamin B can be depended upon to overcome nervousness and irritability; that vitamin C can

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Chemical Drums don't travel by Pullman, of course. But we're taking this method of again calling to your attention the urgent necessity for giving every single drum *FIRST CLASS* treatment and a quick return trip to us.

You already know the story well. Steel is scarce. Drums are scarcer. And the bald fact is—unless every available drum is handled quickly and carefully—and returned promptly—even the chemicals they contain will be difficult to obtain.

If you have not already done so, we would like to suggest that you bring this urgent matter to the attention of all employes involved with shipping, receiving and handling of drums. It will pay you big dividends in the end.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

New York · St. Louis · Chicago · Houston · San Francisco
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CHEMICALS INDISPENSABLE TO INDUSTRY AND VICTORY

DOW

be depended upon to maintain health of teeth and gums; that vitamin E can be depended upon to promote muscular normalcy and vigor, to help prevent anemia and to help iron metabolism; that vitamin G is a natural promoter of clear skin; or that the respondent's product designated "M-7" by reason of its vitamin or other content, constitutes a competent treatment or effective remedy for such diseases, symptoms or conditions.

(7) The use of the term "vitamin F" to describe the content of any product advertised or sold by the respondent, or otherwise designating any ingredients by a purported scientific name or term not recognized by the prevailing weight of authorities in such field of science

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Allied Pharmacal Co.

Allied Pharmacal Co., Inc., Cleveland, agrees to cease misrepresentations concerning medicinal preparations. The corporation conducts its business under the trade names Erie Laboratories, Inc., Avon Pharmacal Co., Victor Drug Products, Mason Pharmacal Co., Mack Pharmacal Co., Dale Drug Products, and Murray's.

The respondent corporation agrees to discontinue using advertising matter which represents that its preparation "Lee's O. B. Tablets" (also sold under the name "Lee's Obesity Tablets") is effective in permanently reducing weight or in increasing vitality; that its preparation designated "Quits" (also sold under the names "Chexs," "Halts," "Breaks") is an effective means of curing or overcoming the liquor habit or that it is tasteless and harmless; that its preparation designated "Murray's Procon Tablets" (also sold under the names "Dale's Urotone Tablets," "RLD Procon Tablets," "Hite's Inco-Tablets," and "Mack's Inco-Tablets") will remove excess acid or neutralize waste matter or is of any value in the treatment of prostate troubles or of conditions secondary to, or associated with, prostate or urinary disorders; that its preparation designated "Elco-Hepo (Hepatic) Tablets" (also sold under the names "Murray's Hepo Tablets" and "Hite's Okay Hepo Tablets") is a remedy for habitual constipation, jaundice or gall stones, or that it will overcome the cause of constipation, headaches, dizziness, marred complexion or poor eyesight, or that it will have any effect other than to offer relief such as may result from temporary evacuation; that its "Hay Fever and Asthma Preparation" constitutes a remedy or cure for hay fever, asthma, sinus or summer colds, or is of value other than to afford temporary relief from the symptoms of such disorders; that its preparation designated "L. H. C. Lee's Herbal Compound" possesses such therapeutic value as to restore strength or vigor to persons suffering from nervousness or who are rundown because of overwork, excessive eating or too strenuous living; that its preparation designated "Elco Iocin Tablets" also sold under the names "Dale's Salicol Tablets," "Grabill's Tablets," and "Hart's Tablets") is a competent treatment or cure for rheumatism, arthritis, lumbago, neuralgia, or swollen joints, or that it is of value other than to afford temporary and partial relief from muscular pains and aches caused by such disorders; that its preparation designated "Furmas" (also sold under the name "Mack's Mozel") is a remedy for stomach disorders generally and effective in relief of distress caused by loss of appetite, sleeplessness, and dizziness where not due to constipation; and that its preparation designated "Elco Exora Salve and Liquid" (also sold under the names "Murray's Exora" and "Mack's E. Z.") is a remedy or cure for skin diseases or will clear up disfiguring skin conditions.

The respondent corporation also stipulates it will cease and desist from disseminating any advertisement pertaining to the preparations designated "Quits," "Elco Iocin Tablets," "Furmas," or "Hay Fever and Asthma Preparation," or any other preparation of substantially the same ingredients or properties, the use of which is potentially dangerous to health, and which advertisement fails to reveal such potential danger; provided, however, that if the directions for the use of the preparation, whether they appear on the label or in the labeling, contain an adequate warning of its potential danger to health, such advertisement need contain only the statement: "Caution, use only as directed."

Complaints

Bromide Preparations

Complaints have been issued against Emerson's Bromo-Seltzer, BC Headache Powders, Stanback Headache Powders, Chelf Chemical Company's C. C. Compound, or 4C's, and Capudine Chemical Company's Hick's Liquid Capudine. Bromo-Seltzer contains acetanilid and sodium bromide; BC, Stanback, and C C Compound contain acetanilid and potassium bromide, and Hick's Capudine contains antipyrine and potassium bromide. All the products are labeled according to FDA requirements of no more than two doses within twenty-four spaced three hours apart. However, the FTC claims that the advertisements for these preparations are false and misleading in that they fail to reveal that continued use of the preparations in quantities exceeding the recommended dose, or with a greater frequency than that recommended, may cause skin eruption, mental derangement and serious blood disturbances, and their administration to children may be dangerous and injurious to health. Such failure, charges FTC, may lead the public to believe that the preparations may be taken in such amounts and with such frequency as may seem necessary to accomplish the represented and desired results.

World's Tonic

William J. Cooksey, also known as Ross Dyar, operating under the name of World's Medicine Co., Indianapolis, seller of "World's Tonic," is charged with false advertising.

In advertisements in newspapers and periodicals, by radio continuities, by circulars, leaflets and other advertising literature the respondent has represented the preparation as a remedy for numerous diseases and ailments in that it assists nature to counteract poisons in the red blood cells, induces a healthy flow of digestive juices in the stomach, and provides the maximum of nourishment and strength from food.

The complaint charges that these claims are false and that the preparation is not a remedy for any of the diseases; that it will not relieve constipation or prevent the oncoming of colds; that it will not alkalize the system, restore the activity of the liver, induce a significant flow of digestive juices in the stomach and will not enable one to gain or retain health as represented by the respondent.

Use of the name "World's Tonic," the complaint alleges, is misleading and deceptive in that it represents the preparation as a general tonic when in truth it does not possess significant tonic properties and the representations also fail to reveal that use of the preparation under conditions prescribed in the advertisements may be dangerous.

INDUSTRY'S BOOKS

Perfumes, Cosmetics and Soaps, With Special Reference to Synthetics, by William A. Poucher, Ph.C., Three Volumes, D. Van Nostrand Co., Inc., New York.

Volume I. This is a dictionary of raw materials together with an account of the nomenclature of synthetics, Fifth Ed., 459 pp., Illus., Cloth, $8.

The Poucher dictionary of raw materials used in the perfume, cosmetic, and allied trades, is so well and so widely known that it is likely to need little introduction to the trade. The advent of a new edition, however, is particularly welcome at this time as it offers the opportunity to bring up to date the material which is so valuable as a reference for chemists, perfumers and production men who must find substitutes for many perfumery raw materials. Since the appearance of the last edition of this work, a relatively large amount of research has been devoted to cosmetic chemicals and it is pleasing to note that some twenty three new substances appear in this volume. The number of available aromatic chemical bodies was already extensive but the author has found six additional chemicals sufficiently interesting to warrant inclusion in this Fifth Edition. A more concise and detailed account of bergamot oil and lemon oil is contained in the new edition as well as a more detailed study of the English lavender industry.

Volume II. This is a treatise on the production, manufacture and application of perfumes of all types, with special reference to synthetics. Sixth Edition, Illus., 430 pp., Cloth, $8.

Poucher's book on perfumery has always held an enviable position in the literature, particularly because neither the French or German works on this subject have been freely translated into English. Since the publication of the last edition of this work, a considerable amount of research has been devoted by chemists in France and Switzerland to the constitution of some of the flower oils. The author has included the more important results in the respective flower monographs, and this information should be useful to perfumers duplicating the various blossom odors. The formulae have been reviewed in the light of this work and adjustments made where necessary. Contents: Historical Sketch: The Production of Natural Perfumes; The Purchase and Use of Flower Absolutes; Odor Classification; Fixation and Blending; Monographs on Flower Perfumes; Miscellaneous Fancy Perfumes; Toilet Waters; Soap Perfumery; Tobacco Flavors; Floral Cachous; Incense and Fumigants; Sachets and Solid Perfumes; Fruit Flavors.

Volume III. This is a treatise on modern cosmetics, Sixth Edition, 234 pp., Cloth, $7.00.

In recent years cosmetic raw materials have received considerable attention by chemists in Europe and America, with the result that many new substances have made their appearance, and are now regularly used by modern manufacturers. This development justifies a new edition of Poucher's cosmetic formulary at this time. In this work is included much new material, particularly relative to bath oils, foam baths, brilliantine creams, hair lacquers, greaseless hair creams, a new type of hair dye, lipstick colors, mascara, eye lotions, skin food, deodorant sticks, complexion milk and powder sticks. The author is impressed with the importance of simplicity of formulae for all experimental work and this is decidedly to the advantage of all those chemists who will work with this book.

Refugee Settlement in the Dominican Republic, A Survey Conducted Under The Auspices of the Brookings Institution, 410 pp., The Brookings Institution, Washington.

In the fall of 1940 The Maurice and Laura Falk Foundation of Pittsburgh made a grant to the Brookings Institution to finance a study of the economic problems involved in settling refugees in the Dominican Republic under the contract concluded in January 1940 between the government of that country and the Dominican Republic Settlement Association. The survey as a whole was conducted under the direction of Dana G. Munro, director of the School of Public and International Affairs of Princeton University. The book is the report of the staff organized to carry out the study.

Chemistry of Engineering Materials, Robert B. Leighou, late Professor of Chemistry in the Carnegie Institute of Technology, Fourth Ed., edited by J. C. Warner, 645 pp., McGraw-Hill Book Co., New York, Cloth, $4.50.

This Fourth Edition has been prepared to make available a modern version of a book which, over a period of twenty-five years, has been useful to students of science and engineering and to practicing engineers. The original purpose of Prof. Leighou has been retained, namely, that of providing information on the chemical properties of engineering materials so that these materials may be more intelligently selected and used. Of the many changes in the text, the following deserve special mention: The analysis, treatment and behavior of water for steam generation has been discussed from the standpoint of physical chemical principles by an author of long practical experience in the field. The section on fuels has been ex-

panded to include weight and volume relations in the combustion of fuels, the thermochemistry of combustion reactions, the principles of making heat and material balances, and a discussion of modern high-octane motor fuels. Modern methods for the dewaxing and refining of lubricating oils and their improvement by addition agents are discussed. The chapter on nonferrous alloys begins with an elementary but scientifically sound discussion of the phase rule and equilibrium diagrams for alloy systems. These principles are then used in the description of alloys and their properties. Steelmaking has been discussed from the standpoint of the influence of furnace, deoxidation, and teeming practice upon steel quality. In the chapter on alloys of iron, an attempt has been made to discuss the most recent information on the principles of heat-treating: to present casehardening, scaling, and protective atmospheres from the standpoint of physical chemical principles; and to give at least a brief account of the most important steels and irons and their engineering applications. The chapter on the technology of shaping metals and alloys, although brief, should give the reader a resume of applications of the various shaping methods. The chapter on the corrosion of metals and alloys has been expanded to permit the presentation of the fundamental theory of electrochemical corrosion and its application to many practical cases. The fact that the nature of the environment is of an importance equal to that of the metal or alloy is stressed. The growing importance of metallic and inorganic coatings has warranted a new chapter describing these materials. Other new chapters are those devoted to abrasives, glass, and organic plastics. In the chapter on rubber, the principal types of synthetic rubbers (elastomers) are described. The behavior of glues and adhesives has been explained on a basis of the principles of colloid chemistry, and the chapter on insulating materials includes a description of materials useful for heat insulation as well as those utilized as electrical insulators.

Industrial Research, by F. Russell Bichowsky, 126 pp., Chemical Pub. Co., Inc., Brooklyn, Cloth, $2.50.

The purpose of this book is to display the social importance of research and to outline those general principles of management and organization which have proven successful in the laboratory. It may, therefore, be considered as a manual for the research director and for the business executive. Contents: Research The Destroyer of Business; Research The Creator of Wealth; What is Research; The Prenatal Factors of Invention; The Postnatal Factors of Invention; Research for the Small Company; Place of Research in Company Organization; The Equipment of the Laboratory; Technical Control of the Laboratory.

Electrophoresis of Proteins and the Chemistry of Cell Surfaces, by H. A. Abramson, Assistant Professor of Physiology, College of Physicians and Surgeons, Columbia University, L. S. Moyer, Assistant Professor of Botany, University of Minnesota, and M. H. Gorin, Chemical Research Supervisor, Field Research Dept., Magnolia Petroleum Co., 341 pp., Reinhold Publishing Corp., New York, Cloth, $6.

To fit the needs of investigators in diverse fields, such as biology, chemistry, medicine, and physics, who are interested in the subject the authors have divided the theoretical discussion into a general and a special treatment. Chapter 1 contains an elementary presentation, in essentially non-mathematical form, of the general principles of electrophoretic migration in liquids. Chapter 2 gives a brief historical background for the material presented in Chapter 1 and subsequent chapters. Following Chapter 3 on methods, which must necessarily be brief but to which suitable references are appended, a rather broad point of view on the electrophoretic behavior of proteins and other amphoteric surfaces is developed in Chapter 4. The first four chapters thus provide a basis for the more difficult theoretical Chapters 5 and 6. Chapter 5 is designed to orient the reader in theoretical topics dealing with electric mobility and the net charge of proteins. Chapter 6 serves to illustrate the way in which proteins can be used to test the general theories of electrokinetics, conductance, and protein behavior. Although the rest of the book is primarily descriptive, the connections of the proteins to their biological functions are outlined and emphasized.

Wartime Planning To Meet Postwar Problems, by Committee on Postwar Controllership Problems of Controllers Institute of America, phamphlet form, 55 pp., Controllers Institute of America, $1.00.

The Committee devoted considerable time to the study of what it believed the postwar period will present in the way of problems for business management and controllers. It has tried to picture what the postwar period will have in store for business, and has attempted to visualize the problems for controllers which will be entailed by these changing conditions.

An Outline of Organic Nitrogen Compounds, by Ed. F. Degering, Department of Chemistry, Purdue University, Carl Bordenca, Department of Chemistry, Alabama Polytechnic Institute, and B. H. Gwynn, Westvaco Chlorine Products Co., 281 pp., John S. Swift Co., Inc., Cincinnati, Cloth, $6.00.

This work is the first planographed edition of the accumulated notes of the author dealing with this extensive field. The material has been gathered from many sources and, while being presented in a concise form, presents the essential chemistry of the organic nitrogen compounds.

Chemistry of Insecticides and Fungicides, by Donald E. H. Frear, Ph.D., Assistant Professor of Agricultural and Biological Chemistry, the Pennsylvania State College, 300 pp., D. Van Nostrand Co., Inc., New York, Cloth, $4.

This text is the outgrowth of the author's lecture notes and reference compilations. It is a particularly valuable reference work for teachers and research workers, particularly in the field of economic entomology, plant pathology and horticulture, dealing as it does with the composition, properties, and reactions of the various chemicals used to control insects and plant diseases. Contents: Part I—Stomach Poisons or Protective Insecticides—Chapters: The Arsenicals, Lead Arsenate, Fluorine Compounds and Miscellaneous Stomach Poisons. Part II—Contact Poisons or Eradicant Insecticides—Chapters: Nicotine and Pyrethrum, Rotenone and Miscellaneous Contact Poisons, Sulfur and Inorganic Sulfur Compounds, Oils, Fumigants. Part III—Fungicides—Chapters: Copper Compounds, Mercury Compounds and Miscellaneous Fungicides. Part IV—Spray Supplements and Residue Removal—Chapters: Wetting, Spreading, and Emulsifying Agents; Spray Residue Removal. Part V—Analytical Methods—Chapters: Macro Methods, Micro Methods. At the end of each chapter is a complete and valuable list of reference works.

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Fundamentals of Anesthesia, An Outline, by Subcommittee on Anesthesia of National Research Council, 215 pp., Illus., American Medical Association Press, Chicago, Cloth, $2.50.

This work is primarily intended to serve as a basis for the instruction of medical officers as anesthetists. Since its emphasis is on the principles governing safety in the administration of depressant drugs and the care of patients in a state of respiratory or circulatory depression, it is intended to prove useful to a wider range of readers: surgeons, medical officers, wardmasters and others. The material has been drawn from a wide range of sources, Much of it was issued in pamphlet form by the American Medical Association at their meetings in Atlantic City (1937), San Francisco (1938) and St. Louis (1939). Further material has been contributed by the members of the Subcommittee on Anesthesia, who have been assisted in this task by their associates, assistants and students. The pages of this book attempt to set forth: (1) the simple principles of physiology, pharmacology, chemistry and physics on which the sound practices of anesthesiology are based. (2) the technical procedures necessary to apply these principles effectively in relieving surgical pain and (3) the application of these principles to the management of patients suffering from injury, illness, operation or the effects of depressant drugs in the hospital or in the field.

Climate Makes The Man, by Clarence A. Mills, M.D., 320 pp., Illus., Harper & Brothers, New York, Cloth, $3.

Clarence A. Mills is Professor of Experimental Medicine at the University of Cincinnati and Attending Physician at the Cincinnati General Hospital. Most of his work has been in medical research with the emphasis on the effects of weather and climate. He has traveled about the world pursuing this research, the results of which make very interesting reading. Climate affects our rate of growth, speed of development, resistance to infection, fertility of mind and body, happiness and length of life. It lulls the peoples of the tropics into passive complacency and it drives those of the temperate zones into restless activity. Dr. Mills neatly punctures the myth of early physical maturity in the tropics and shows why sexual development is actually retarded by extremes of heat or cold. He has many other challenging ideas to offer on the varying effects of caffeine, alcohol and nicotine under different climatic conditions—the relation of climate and weather to tuberculosis, hardening of the arteries, sinusitis, cancer and other ills to which the flesh is heir.

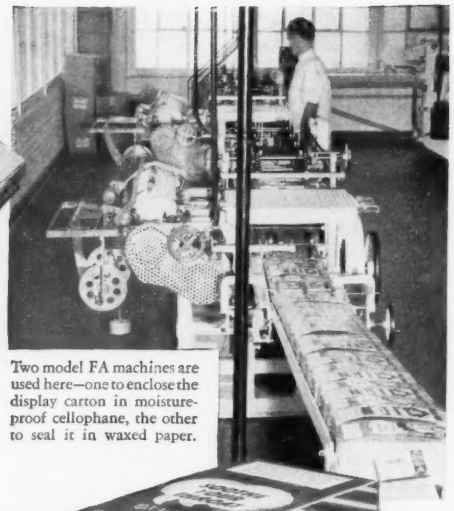
Osler's The Principles and Practice of Medicine, by Henry A. Christian, A.M., M.D., LL.D., Visiting Physician, Beth Israel Hospital, Boston, Fourteenth Edition, 1475 pp., D. Appleton-Century Co., New York, Cloth, $9.50.

For a span of fifty years, 1892 to 1942, this volume has epitomized the practice of medicine as modified from edition to edition by the guiding hand of a single editor, who as teacher and practitioner had gathered from the writings of many their medical wisdom and had interpreted it to succeeding generations of students and practitioners in the light of a personal clinical experience gained from ward visits, office and consultation practice and from the teaching of medical students. Now the 14th, a semicentennial edition appears, still with a single editor, who has changed the text to fit recent advances in medicine and yet has preserved that spirit of the past editions, which has seemed to fill so well the needs of students and practitioners. In this edition there is rearrangement and much that is new, but the new has been added only after experience has seemed to indicate that it is worth while. Among the features of this edition are the latest accepted methods of treatment, especially Chemotherapy, presented in greater detail and conveniently placed with the discussion of each disease. Increased emphasis on the functional aspects of medicine. Subjects rearranged into more logical sequence based on prevalence and present day importance of each disease. Epidemiology properly stressed. Necessary pediatric considerations included. Tropical and parasitic diseases allotted increased space as required under modern conditions. Diagnosis simplified by the finest clinical descriptions of disease in the English language. Bibliographic data introduced for the first time with references largely to accessible sources, many 1942. Newly identified diseases discussed. A remade index, complete to the last detail. This great work is divided into the following main parts: Functional Diseases of the Nervous System; Infectious Diseases; Parasitic Infusoria; Metazoan Parasites; Insect and Reptiles; Diseases Due to Physical Agents; The Intoxications; Deficiency Diseases; Diseases of Metabolism; Diseases of the Digestive System; Diseases of the Respiratory System; Diseases of the Kidneys; Diseases of the Blood; Diseases of the Spleen; Diseases of the Lymph Nodes; Diseases of the Heart; Diseases of the Arteries; Diseases of the Veins; Vasomotor and Trophic Diseases; Diseases of the Glands of Internal Secretion; Diseases of the Locomotor System; Organic Diseases of the Nervous System.

Drug Products, Their Labeling, Packaging and Regulation, by Arthur D. Herrick, Member of the New York and Federal Bar, 462 pp., Revere Publishing Co., New York, Cloth, $7.50.

While there have been several previous published works on the subject covered by this latest volume, Mr. Herrick has handled his book in a way likely to make it most valuable as a reference to the complexity of the legislation under which drug and cosmetic manufacturers must operate. For one thing, its publication at this time has given the administration of the law time to clarify and formulate its policies. The author also has had time to map out the basic principles which underlie the practical application of the law and regulations. The book therefore avoids the theoretical and concerns itself with the practical problems and there solution. Every statutory requirement, from its elementary principles to its actual application is explained and interpreted. The book contains hundreds of usable label forms, suggestions, hints, and warnings against possible violations. Furthermore, as it deals only with drug and cosmetic products it omits the food aspects of the law which would be irrelevant to our own industry. This one compact volume deals with official drugs, proprietary preparations, antiseptics, non-official drugs, veterinarian products, crude drugs, therapeutic and other devices, cosmetics. Contents: Federal Drug Legislation; Products Subject to the Act; Misbranded Drug Products; False and Misleading Labeling; Packaged Drug Products; Informative Labels; Adequate Directions and Warnings Against Misuse; Packaging Drugs;Fraudulent Drug Products; Dangerous Drug Products; Label Display and Prominence; Products Exempt From Labeling; Adulterated Drug Products; Contaminated and Harmful Drug Products; Official Drugs; Maintenance of Non-Official Standards; New Drugs; Submission of New Drug Application; Refusal and Suspension of New Drug Application; Cosmetics. The work is completely indexed for easy reference.

Our model FA machines enclose each package of Vicks Cough Drops in a firmly-sealed moisture-proof cellophane wrap.



Two model FA machines are used here—one to enclose the display carton in moisture-proof cellophane, the other to seal it in waxed paper.

Synchronized Packaging
in VICKS Cough Drop Plant

Among the newer plants, completed before the war, Vicks Cough Drop factory is an outstanding example of a foresighted and carefully planned production set-up.

A user of our machines for many years, the Vick Chemical Company installed our wrappers and bundlers in its modern manufacturing layout.

- Filled cartons are conveyed automatically to the wrapping machines which wrap each carton in moisture-proof cellophane.
- From the wrapping machines the cartons pass along to hand packers who place them in display containers.
- After being filled, the containers are automatically conveyed to the girls who close them. They then travel to the wrapping machines which wrap each container, first in moisture-proof cellophane and then in heat-sealed waxed paper.
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PRODUCTION FORUM

By FRANCIS CHILSON
Production Engineer

WAR CONTRACT COSTS

The clerical task involved in bidding on war contracts has reached huge proportions in the industry. Not only is the cost work involved in bidding on these contracts extensive, but it is also always urgent. In many cases I have seen bid requests come into the offices of my clients in the late afternoon with a deadline specified for the following morning.

The Quartermaster Corps uses no common sense whatever in making requests for bids because apparently no one connected with the Quartermaster Corps has any cost training or any conception of the work involved in computing a cost on items which are out of the regular run of production.

Hence, the time between the release of the bid request and the opening of the bids is, in most cases, altogether too short. I think, therefore, the various associations in the drug industry should establish, with the cooperation of all manufacturers, a central cost office. This cost office should act as a clearing house for cost information on all preparations required by the Government.

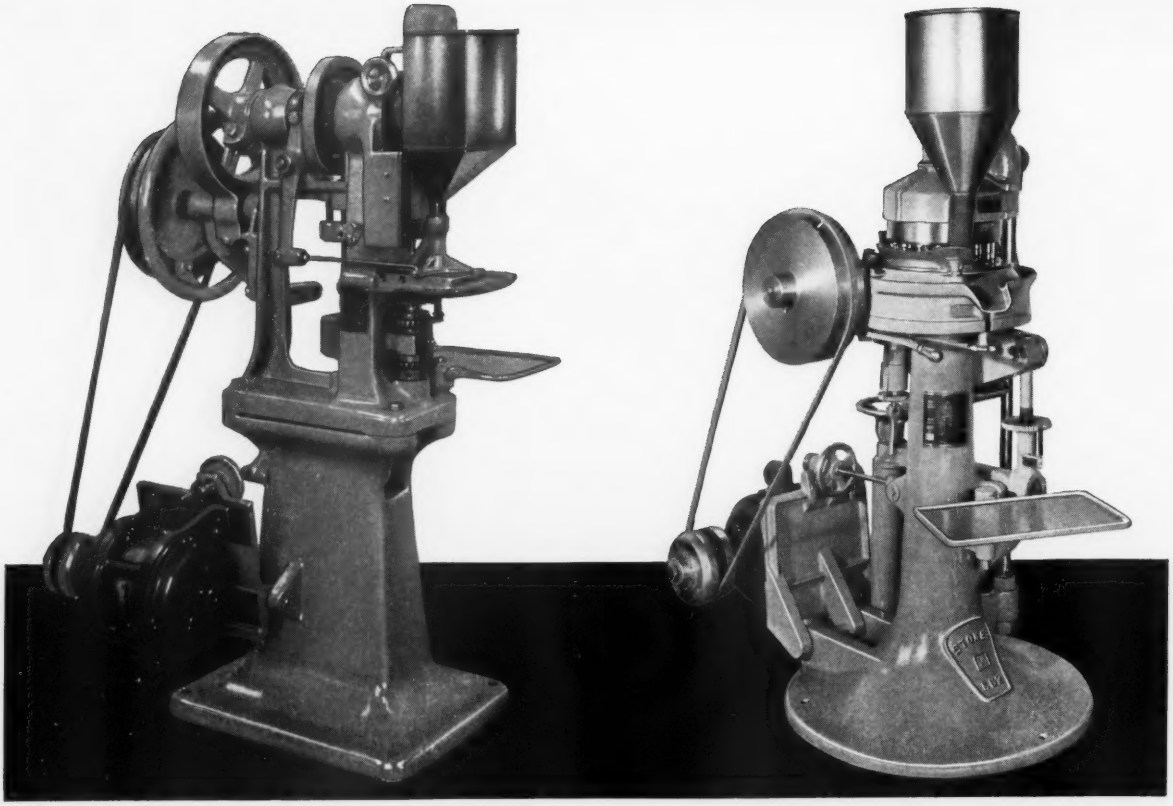
Costs should be analyzed in terms of materials, labor, and overhead. Since the Government is primarily purchasing standard preparations, the task of keeping material costs up-to-date is simple. Costs of labor and overhead could be supplied by cooperating manufacturers. Then when a manufacturer desires to submit a bid, let us say 10,000 points of Cascara Aromatic, he could, by simply telephoning or wiring the cost office, obtain the material cost, the average labor cost of the trade, and the average overhead. Then he could submit a bid accordingly.

One of the things that has impressed me about many of the bids on staple items is the slight price variation per unit. After all, in dealing with standard packaged pharmaceuticals, labor and overhead costs vary only slightly in spite of wage increases. Raw material costs and packaging material costs fluctuate somewhat, but only in a few instances has the fluctuation been startling. Labor costs vary somewhat from plant to plant as does overhead, but the variation is not tremendous.

Therefore, the cost office in furnishing information could state that on a specific item the material cost range is a certain figure per dozen bottles and that the trade labor figures range from a low of x amount to a high of xy amount, and a similar statement could be made for overhead.

Periodically the cost office could publish booklets for cooperating firms, giving the figures that have been quoted on previous contracts. With such information at his finger tips, a manufacturer could submit a bid in a very short time with reasonable assurance that his figures are close enough to obviate any danger of a serious loss.

If it weren't for the Sherman Anti-Trust laws, the industry could go one step further and periodically establish a trade price for Government supplies. As a matter of fact, if such a step were taken in spite of the law, it is doubtful if there would be any repercussion. Certainly there would not be any from military sources because these sources have the power to negotiate contracts regardless of price or competitive bidding. However, only a few contracts have been negotiated because professional military men know that after the war there will come a day of reckoning, and they do not wish to expose themselves to charges of graft or to charges that



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If you have not already had a supply of these booklets we suggest you write for as many as may be needed for all the men responsible for machine operation and maintenance.

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they wastefully squandered the Government's money. Therefore, the competitive bidding system has persisted, and it is a burden on the industry.

ACCOMPLISHMENT VERSUS WORK

There is a vast difference between "working like Hell" and "getting a Hell of a lot done." In the many plants I have looked over, I have often been impressed with the failure to distinguish between work and accomplishment. The two are commonly understood to be synonymous in meaning but definitely are not.

Some years back I looked over a packaging department which gave one the impression of feverish activity. The department consisted of several automatic packaging lines. Beside each of the operators on these lines a small bench had been placed. This bench was furnished with numerous small collapsible tubes and cartons which were too small to be handled mechanically.

When a stoppage occurred on the packaging lines for any reason, the girls immediately turned to the small benches and began cartoning the collapsible tubes. Of course the girls were paid on a piece-work basis, and the general impression was, as I have said, one of humming activity.

When I announced that they weren't accomplishing anything, it was like throwing a bomb into a church. Such a shocking statement almost precipitated a riot. I pointed out that the production which really counted came from the lines and not from the handwork, and, that, moreover, the fill-in work was the means by which the department head and the executives running the plant were blinded as to the number of stoppages that were actually occurring.

The average performance of the equipment was good when it was operated, but taken over a period of day or a week, the average output was low. I persuaded the Plant Manager to change the system forthwith so that every time a breakdown occurred, the idle girls would call attention to a serious condition. This was done, and immediately all manner of things came to light; namely, bad setups, improper equipment adjustment, improper care of adhesives, defective packaging materials, and so forth. The situation was quickly corrected, and the performance of this packaging department became in a short time remarkable.

This seems so elementary that it does not seem worth mentioning, but I am beginning to believe that common sense is the rarest commodity in the world.

Not long ago I was given a new job. The manufacturer was in desperate straits. Thousands of cases of his goods were on back order, and he and his Plant Manager assured me that nothing more could be obtained from existing facilities. Somehow or other I was expected to pull a rabbit out of my hat or improvise some equipment out of God-knows-what.

The Packaging department contained full automatic equipment of the best type available for the praticular products involved. The rate of speed of the automatic machines was sixty containers per minute. The Plant Manager assured me without any question of doubt that he was maintaining an average of fifty-eight containers a minute. What he really meant, although he didn't know it then, was that we was averaging fifty-eight a minute when his equipment was operating. After studying the situation for two or three days, I observed enough conditions to convince me that either his output figures were wrong or that I was crazy. Therefore, I took the production records and determined the maximum production for the best week the firm had ever had. I then divided this by the number of working minutes in the week and discovered that the average output was not fifty-eight packages a minute but forty-two.

This investigation showed that the reason for this was that the manufacturer had fallen for the gravity flow fallacy. His facilities were housed in a multi-story building; processing began on the top floor, and the operations of loading, mixing, milling, and so forth, proceeded from floor to floor downward to the filling equipment. The detention hoppers on the filling machines were too small, and, consequently, there was a lag between the filling operation and the final processing operation. Very often the filling machine would run out of product before the next batches came through. Because of the lack of detention space also, there was a considerable loss of time when equipment was cleaned up for changes in product. But always there was work for the girls to do so that everybody was always busier than a flea on a griddle. The setup looked pretty, but it didn't perform.

These incidents I mention to emphasize the great difference between doing a lot of work and getting a lot of work done. In these times when it is almost impossible to obtain equipment, are you sure before you start adding additional shifts that you actually are obtaining maximum output for the facilities you have?

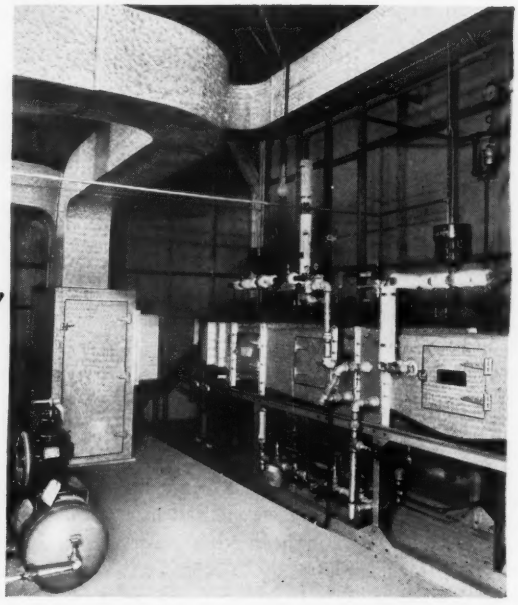
BROKERAGE SELLING

The continued requisition of men for the armed forces and for vital war work poses a question as to how drug and cosmetic manufacturers are going to continue to maintain their selling organizations.

In the drug and cosmetic industry each firm generally has its own sales staff. In some cases also a force of detail men is added to the regular staff. Some manufacturers sell through wholesalers and maintain their own sales force to contact retail channels as well. Other manufacturers sell through their own branches. Still others direct to retailers.

Hence, sales forces of drug and cosmetic manufacturers may run from a few dozen men to several hundred. Regardless of the war, this practice is not economical when it is considered that so many men representing non-competing lines cover identical territories. Since the war will certainly curtail sales staffs, I'd like to bring the attention of the trade to the method of selling known as brokerage selling which is followed generally by food manufacturers.

Weather or not—we must have *good* DRUGS



Close-up view of Ross apparatus used in air processing drugs

It's time for Modern Methods!

Ross Air Systems for the Drug Industry are not only speeding up production but improving uniformity of output as well. In many cases they have greatly increased production with less floor space and less processing equipment. Operating costs and spoilage losses are being cut to a minimum. Take steps now to increase quantity and improve quality of your product. Ross engineers will gladly submit recommendations for your requirements—without obligation.

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In our industry a broker is generally understood to be a man who deals with raw materials. In the food trade a broker is an individual who sells non-competing finished products. In the food trade there are, just as in ours, wholesalers, chains, supermarkets, and so forth. In addition are the sales brokers.

A sales broker covers a definite territory and is paid a commission. He employs his own men and pays their expenses. His men cover the territory thoroughly, selling all outlets. They also cover the retail stores for the benefit of the wholesalers. A broker's man will not handle competing lines. For instance, he may handle Jello, Wheatena, Diamond Matches, Del Monte, and so forth.

The system certainly works because such famous firms as General Foods, Standard Brands, Kellogg's, and many other large food manufacturers use it. One grocery manufacturer, with whom I discussed the problem, mentioned the fact that in one specific territory which he had attempted to cover with his own men, cost on an average $350 per month per man. When he turned his account over to a broker, he got better coverage in the same territory at a monthly cost of $75.

Again I repeat that if such a great firm as General Foods believes that brokerage is the most economical way to distribute merchandise, then it must certainly be a sound practice and one well worth intensive study by this industry.

As to detail men, the same idea applies. The great difficulty in detailing a territory consists in reaching the doctors. Doctors are hard to reach, not only because they are busy (and they will be fewer and busier), but because there are so many detail men hunting them. It would seem that doctors would welcome a detail man who represented not one firm but several, especially if he represented the non-competing products of a half-dozen manufacturers. His visit should be much more interesting to the doctor.

That group detailing will work is proved in at least one instance by the fact that People's Drug in Washington have a detail man who covers a territory for the incidental purpose of keeping the doctors informed as to what is new in drugs and primarily, of course, for the purpose of selling the doctors the idea of the People's Prescription Departments. Although I haven't checked the point, it is likely that other chains follow a similar practice.

It is apparent that group detailing and brokerage selling are likely to elicit furtherstudy because in the drug trade, as in the grocery trade, it has been long agreed that you cannot depend on the wholesaler to do your selling for you. By some means you must reach the ultimate distributor yourself, either by sending out your own men or by means of brokers.

Sales managers will ask a question as to how brokers' men can be trained. The experience of the food industries may be cited as a simple answer to this question. The sales staffs of these manufacturers consist pretty largely of district managers. These district managers call on the brokers and work in the territories with the brokers' men at periodical intervals. Food manufacturers, therefore, feel that they have as much control over the brokers' salesmen representing them as they would have over their direct employees.

NEW TYPE PALLET

The Union Metal Manufacturing Company of Canton, Ohio, maker of steel skids, boxes, pallets, and other materials handling units, has announced a new product, specifically designed to aid the nation's war effort.

This new product is a sturdy pallet, consisting of top and bottom wood slats, reinforced with steel at the

ends and in the center. Bolted construction permits easy replacement of the wood slats, while the steel ends protect the pallet from damage by power fork trucks.

Vital metal is thus conserved without sacrificing strength and all-around usefulness, and ease of handling is preserved. According to the manufacturer, these new pallets are available in sizes to meet any ordinary materials handling requirement.

MEN WANTED

A specialty food company has asked me to locate a packaging engineer who has a good deal of experience in packaging dry, semi-solid, and liquid products. If anyone reading this, would like such a job, send me a resume of training and experience, and I will pass it along.

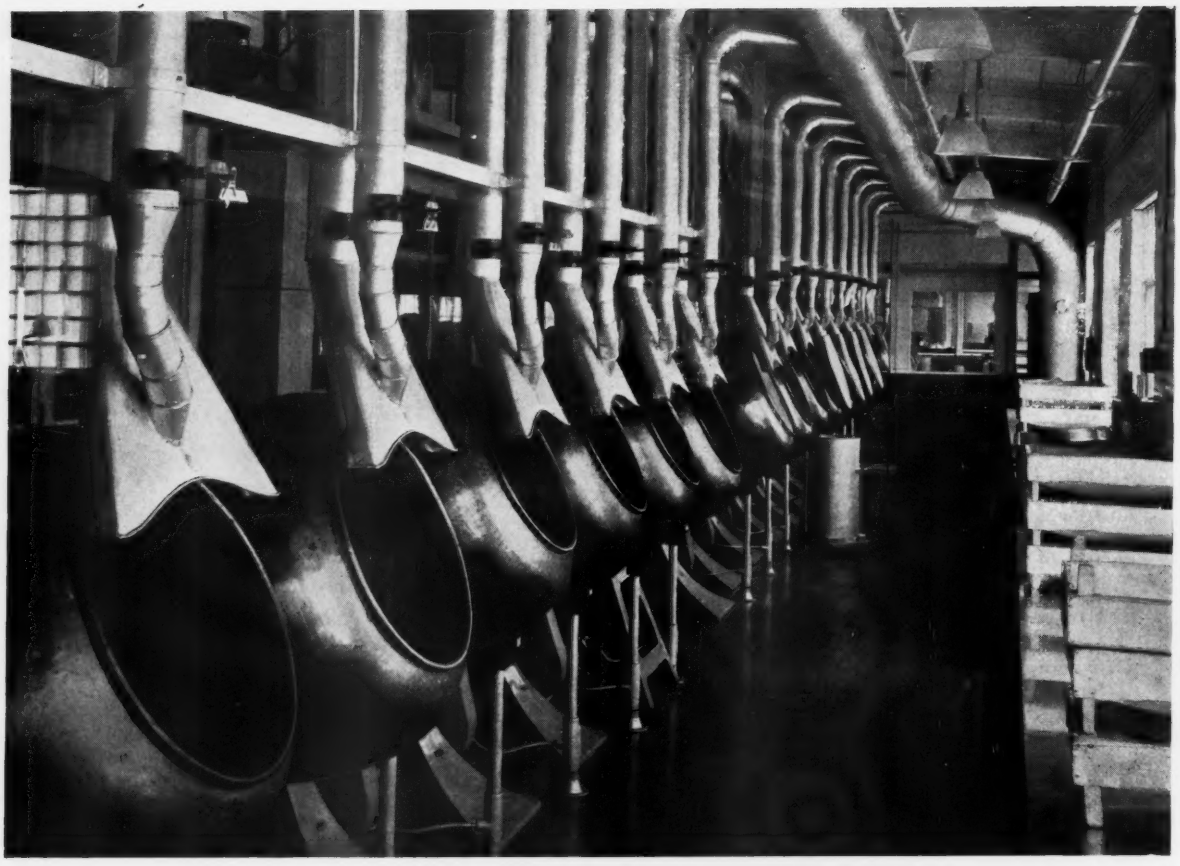
I also am trying to locate for a Philadelphia concern a man to take full charge of a Tablet Department. In particular he must be a first-rate coater as this outfit has had considerable trouble with coatings in the past.

PACKAGE MACHINERY

"Necessity is the mother of invention" is an old axiom which is now working overtime with many interesting results.

Through the medium of trade-paper and direct-mail advertising, the Package Machinery Company of Springfield, Massachusetts, now engaged mainly in war production, has been helping old customers with war-born problems.

First, the Company attempted to locate all the machines which they had made or sold, but which were now idle. These machines were then leased or sold to



A Row of Coating Pans fed with dry air from a LECTRODRYER

—efficient moisture control

LECTRODRYER, "Activated Alumina System" solves many problems caused by high relative humidities. The air condition type LECTRODRYER, widely used in the pharmaceutical industry for this purpose, supplies a flow of air at lower than normal relative humidities. This air has numerous uses. It is often used for supplying dry air to coating pans, drying cabinets, tray dryers and the like. It is often used for maintaining lower than normal relative humidities in rooms where moisture affected products are handled, stored, or packed. While the air conditioning type LECTRODRYER partially dries the air, other units are available for thoroughly drying air and other gases and even certain organic liquids. These units are built for operation at pressures from atmospheric up to 3500# per sq. in. LECTRODRYER equipment is available in many standard types and sizes . . . they are also built to specification to meet individual service needs. What are your drying problems? Write us, describing your requirements, and we'll tell you what LECTRODRYER will do for you. PITTSBURGH LECTRODRYER CORPORATION, Foot of 32nd St., Pittsburgh, Pennsylvania.

LECTRODRYER

customers unable to obtain a high priority rating for new equipment, and to customers who were too rushed to wait for new equipment even though they had the required rating. Machines are now wrapping flashlight batteries and Army rations which used to wrap cigars and soaps. In addition, the Company offers the services of its engineering and designing department to other manufacturers who have problems requiring experienced engineering talent.

In BUSINESS WEEK a one-shot ad proclaimed:—"You may have ideas for new machinery (or) you may have a machine or machines which you have been making in your own plant, but which you could make with greater profit in ours . . ." The Company is now trying to find a market for machinery it is going to make after the war from equipment it has installed during the war.

ANOTHER WAR SUBSTITUTE

The Celotex Corporation in Chicago have introduced a substitute for corrugated sheet metal siding—the Celotex Corrugated Asphalt Siding which has just been placed on the market. It is a noncritical, emergency material developed to take care of numerous building needs where corrugated steel sheets normally would be used.

It can be applied to the outside walls of temporary structures, to factory buildings, machine and storage sheds, warehouses, dairy barns, and poultry and livestock buildings.

This asphalt siding consists of two sheets of heavy felt, each piece soaked in a rosino-bituminous solution and then bound together with a high melting-point adhesive and corrugated. It has great rigidity, is lightweight and moisture-proof, and the corrugations will not flatten out during the hot weather. This siding is available in the following sizes: 28″ x 6′, 7′, 8′, 9′ and 10′.

LABOR OUTLOOK

Everyone realizes the steadily increasing labor shortage. To date the Drug and Cosmetic Industry has not been hurt tremendously, especially those individual plants which are remotely located from war industries. Plants which were established in small country towns are getting along very much better than the others. This proves a point I have long made in advocating rural locations for Drug and Cosmetic plants.

The draft, however, will commander regardless of location a sizeable percentage of your male help. It is not beyond reason that the draft will be extended to female help as well. I think, therefore, the war affords a God-send opportunity to do ruthlessly what you never had guts enough to do before; namely, cut out all of the slow-moving, low-profit, deadwood items from your line.

In times of peace there is a tendency to carry dead items for an indefinite period or as long as they continue to produce a little revenue and as long as they appear to increase the volume of sales. Salesmen are hell on anything that will build volume; they don't always consider profit aspect as well.

If you can eliminate all deadwood, you will have less need for labor, and you will make more money on your main lines. A manufacturer of 3,000 items told me not long ago that he felt that a line of 200 would adequately serve his outlet, but he didn't have gumption enough ruthlessly to swing the axe and let the chips fall where they would because of inventories, sales department belly-aches, and so forth. Incidentally, unless I am mistaken, inventories of discontinued materials can be junked and written off and, hence, constitute deductible tax items.

There is another important reason for concentrating on the manufacture of essential items only, and that is, the manufactures of war commodities already are beginning to have difficulty in servicing regular business and back orders are piling up. It seems unwise to permit this condition to occur especially on important lines and waste time and labor in manufacturing unimportant items.

COOPERATION

Again I would like to call your attention to a program advocated several years ago in this department. Reference is made to the necessity for cooperation in shipping goods. Now that all trucks have been registered, and a great many will be eliminated from the road, full advantage should be taken of every truck mile from now on until the end of the war. Therefore, manufacturers who are located reasonably close together should pool their shipments in order that every mile of truck travel is fully loaded both coming and going. It is obvious that cooperative freight shipments afford in many cases an opportunity to get carload rates where normally LCL rates would have to be paid.

The idea of cooperation can be extended, as we have advocated before, into the field of analytical work. Chemists are in great demand by the war industries, and good ones are as scarce as hen's teeth already. It seems, therefore, that something could be done about the repetitive analytical work which takes place throughout the industry. Every firm maintains its own analytical staff, and analyses are endlessly made on identical batches of chemicals. For instance, a chemical manufacturer may ship a batch, let us say, of sodium bicarbonate to as many as a hundred customers each of whom will run identical analytical controls before the material is used. This wasted effort, it seems to me, could be eliminated by the establishment of a centralized analytical laboratory which would analyze and certify for chemical manufacturers and users each batch of chemicals as they are made. I am satisfied with the continuing, and, even increasing, need for analytical control even though I am fully aware that chemical manufacturers do exhaust every resource in conforming to specifications. But they do make mistakes, and occasionally a substandard batch will get by. A certification by an outside laboratory would check up such errors. Such certificate on an unbroken container of materials should be sufficient for the user in lieu of an actual analysis by his own chemists.

We've done our share of America's packaging, too!

In many lines, the bulk of production of the industries is S & S packaged . . . In many more, the job is split about evenly between S & S and others . . . In almost every industry where the material to be packaged is a powder, granular substance or paste, S & S has supplied a goodly percentage of the packaging machines.

This is easy to understand when you remember that, in many cases, it has been S & S improvements that have made the advances in packaging technique—that have made practical many better packages at lower unit costs. Further, it has been S & S developments, like that of the first tight-wrapper, that alone have made possible many new triumphs of modern packaging.

TODAY — WE'VE FOUND FOUR NEW WARTIME WAYS TO SERVE:

We supply many essential new S & S machines . . . and help convert old S & S equipment to wartime uses. And, drugs and chemical products for the armed forces and the home front—munitions—a vast number of familiar goods and a large percentage of the new dehydrated foods—a hundred other war-important items—are speeding through production faster, in greater volume, because of this.

We are helping, too, in solving war's new and unfamiliar packaging problems, through close collaboration with many packagers.

And, we are doing this in addition to production direct for the United States Government, at whose disposal our facilities have been placed.

ONE OTHER JOB WE WANT

If you have a packaging problem that's war-essential, bring it to our engineers. We'll help any way we can, so long as it contributes toward Victory.

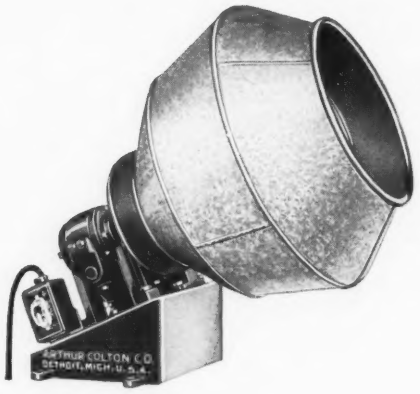
STOKES & SMITH Co

4912 SUMMERDALE AVE., PHILADELPHIA, U. S. A.

FILLING - PACKAGING - WRAPPING MACHINES

NEW COLTON BENCH TYPE COATING STAND

(MOTOR DRIVEN)



SPECIFICATIONS

¼ H.P., 1750 R.P.M., 110 V.—1 Phase Master Right Angle Geared Head Motor

Revolutions of Pan.....36 per minute
Bench Space.....24″ x 14″ x 26″
Approx. Net Weight.....100 lbs.
Approx. Gross Weight, Boxed for Export.....175 lbs.

THIS newly designed Bench Stand (Motor Driven) is far superior to the old Belt Drive from countershaft. The maximum diameter of Pan (either Copper or Galvanized Iron) recommended is 20″ diameter and pans are interchangeable on Stand.

This Motor Driven Stand lends itself particularly for small batches and especially as a teaching adjunct for Universities and Colleges.

ARTHUR COLTON CO.

2620 EAST JEFFERSON AVENUE

DETROIT, MICHIGAN, U. S. A.

ESTABLISHED 1884

DRYING

The more experience I garner in drying, the more I am convinced of the paucity of worth-while literature on this subject. Some materials are very easy to dry of course, and since time cycles and cost of steam are not always troublesome, people have a tendency not to investigate the subject too closely. But when the product is extremely difficult to dry by ordinary means, then it is necessary to do some deep digging.

Sometime, when you are confronted with a problem of drying a mass, such as a pill mass quickly, you can adapt a vacuum drier for the purpose with quite startling results. Under ordinary circumstances a vacuum drier of the shelf type is used only with hot water in the shelves. The time cycle, of course, is quite slow. You will get an altogether different result if you try steam up to 50 pounds.

In one instance it was possible to dry a tough, doughy mass, which was too sticky to be granulated or otherwise subdivided, in two and three-quarter hours. The driers had to be supervised closely because there was a tendency to puff the material to a point where it would adhere to the shelves above the trays, but by momentarily breaking the vacuum, it was possible to keep knocking the swell down so that no difficulty occurred. Eventually a point was reached in the cycle when the moisture was pretty well removed, and the material no longer puffed. I was told that such a procedure would certainly damage the material due to local scorching, but the material was passed on by a bio-chemist so I guess it must have been all right.

This experience is mentioned because I never have seen a time cycle of two and three-quarter hours to dry such a mass completely.

Incidentally, I want to mention that I would not advise the use of steam in the shelves of an old vacuum drier which might be pretty badly worn or corroded. The driers used in the test referred to were virtually new.

STOKES MACHINE BOOKLETS

Two interesting bulletins have been issued by F. J. Stokes Machine Company, Philadelphia. The first of these is an eight page booklet entitled "Tips." The booklet is of aid to manufacturers of tablets, both pharmaceutical and industrial, in prolonging the useful life of their tabletting machines and the punches and dies used in them. The booklet stresses the importance of cleanliness, lubrication, and correct use of pressure. It contains a wealth of factual information compiled from actual experience of users of this type of equipment. It is intended as a guide and instruction book, particularly for the inexperienced workers who are being trained by manufacturers to take the place of those called into the armed forces. The company will send you as many of the booklets as you want.

The second bulletin illustrates improved model Stokes High Vacuum Gauges for use either as portable instruments or on fixed mountings. It explains how these gauges make it easy to check a vacuum system at various points in order to determine any fall in pressure, whether the pipe lines are of adequate size or may have leaks, whether pumps are drawing the desired vacuum, how the efficiency of pumps or vacuum equipment compare, etc.

Explained also is how accurate readings, within the micron range, can be taken with these gauges in a few seconds only, why the instruments can be carried about the plant or laboratory without injury, how any operator can learn in a few minutes to take readings. The bulletin is illustrated, contains complete description of gauges, specifications and prices.

The "Tips" booklet tells how to keep machines clean, how to lubricate machines, the general care of punches and dies, the care of pressure rolls. It discusses avoiding overloads and thereby minimizing wear, it discusses the use of efficient lubricants for granulations, it advises making softer granulations if possible, it tells how to insert dies carefully. In addition it tells that tubes should be used to store punches, and that punches should be refaced. It discusses the advantages to be gained by using a dust collector, and it cautions against the practice of allowing feed frames to drag.

TREAT EQUIPMENT KINDLY

During the present time when metals and all kinds of equipment are scarce and can only be obtained for certain purposes, it is important that manufacturers treat the equipment that they have kindly. But in addition to the fact that equipment cannot be added to or replaced, is the cold fact that many users are busier than ever due to the heavy demands of the government for drug products. Therefore, equipment must not only be treated kindly, but it must also be kept running at top speed as many hours as there are in the day. One way to increase production under these circumstances is to be certain that all parts of the equipment are being utilized so that the maximum production is being obtained. No part of the equipment should be allowed to lie idle for a moment in a way that it keeps another piece of equipment idle. These are times when manufacturers should not only try to keep their equipment in good condition merely because of the fact that they might not be able to replace it, but also because of the fact that metals are needed badly for the total war effort, and even though they might be able to obtain a priority to replace a piece of equipment, they should avoid such a move if they possibly can. All manufacturers should try to increase production of anything that they make with their present equipment; also they should not replace equipment unless it is absolutely necessary to do so.

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FITCHBURG, MASS.

West coast representatives:
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369 Fifth St., San Francisco, Cal.

for powders, granules, crystals

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52—Monel and Stainless Steel Kettles, capacity 25 and 45 gals.
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1—Proctor & Schwartz 9-truck Atmospheric Dryer, 1562 sq. ft. tray surface.
1—20 gal. Monel Kettle, electrically heated.
8—1000#, 800#, 600# Dry Powder Mixers, other sizes.
2—World Rotary Automatic Labeling Machines.
1—Burt Straight Line Duplex Automatic Labeler.
3—World, 1-Ermold semi-automatic Labeling Machines.
1—Pneumatic Scale Talcum Powder Filler and Capper, Uni complete.
2—Karl Kiefer Visco Filling Machines.
6—300 gal. Copper closed tin lined Tanks.
2—300 gal. Pfaudler jacketed Kettles, side m.d. agitators.
25—Aluminum, Copper, Glass Lined, jacketed and agitated Kettles.
Copper and Galvanized Coating Pans; Colloid Mills; Viscolizers.

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....It's the ERTEL SWIVEL JOINT MIXER—its development based on ERTEL'S experience with various makes and types of mixers. Find out now how the ERTEL SWIVEL JOINT MIXER can increase efficiency and minimize accidents in your mixing department.

MOTOR CAN'T SLIP

while making angle adjustments on the mixer shaft. This one feature alone is a "must" you can't afford to be without. Write now for further details and prices. You won't be obligated.

Ertel equipment is original in its design and construction.

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EXECUTIVE OFFICES AND FACTORY AT
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MANUFACTURERS OF LIQUID HANDLING EQUIPMENT

Here's what you'll like about the new

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The most practical hand filler for creams, lotions and liquids.

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Est. 1849

The COMPOUNDER'S CORNER

CHEMICAL DEODORANT

Discovery by three industrial chemists of an inexpensive chemical compound which will destroy any offensive odor known to exist was announced.

Olfactory offenders upon which the compound has been successfully tried include skunk scent, stench bombs, cooking cabbage and fish, butcher shops, dog pounds, fish markets and public rest rooms.

Designated OD-30, the compound was created after three years of research and experiments by Dr. Walter H. Eddy, professor emeritus of physiological chemistry at Columbia University, Dr. James H. Dalbey, of Chicago and New York, a former industrial chemist for the du Pont Company, and Dr. Lloyd Arnold, professor of bacteriology and public health at the University of Illinois.

The compound, according to Dr. Eddy, literally kills the smells by burning them with oxygen as they float in the air. OD-30, however, does not stop the source of the smell, but merely the gas emitted from the source. Through continued use of OD-30 at intervals any smell can be kept down, Dr. Eddy said.

In most cases, the compound, a dry powder, is converted to solution with water and sprayed. But the solution may also be applied directly as in the case of its use as a mouth gargle, since it does not harm human tissue. Dr. Eddy said it could even be swallowed with no ill effects. To use it in a kitchen, he suggested that the solution be placed in an open receptacle over a burner to permit vaporization.

He said it had even been used for the relief of persons who suffer from virulent diseases which produce nauseating odors.

Current plans of the three discoverers call for commercial marketing of the compound within the next sixty days. Dr. Eddy said it will cost little.

Deodorants heretofore have been used merely to cloak or camouflage one odor with another, Dr. Eddy said. OD-30 has no odor whatsoever, he added.

The compound is a mixture of potassium permanganate, borax powder, carbonate of soda and several other familiar ingredients. But added to these is a secret catalyst, discovered by Dr. Dalbey. This catalyst is the activator which sets off the oxygen combustion. Dr. Arnold conducted the experiments which determined the compound's multiplicity of effective uses.

JOJOBA OIL

One more vegetable oil added to the oils now in commercial use is not news—except when that oil is different. Jojoba, pronounced hoho'ba, is different; it has remarkable stability under heat, freedom from color and odor, and a limpid character. Right now, jojoba oil—still in the test-tube stage—appears to be earmarked for special duty in the oil world by virtue of its unique properties.

This oil may some day be employed commercially in the chemical processing, soap, leather, and lubricating oil industry, as well as in the fields of wax polishes and cosmetics. In the electrical industry there may be opportunity for its use as a transfer oil.

Down in our southwestern States, specifically in Arizona and California, and also in adjoining Mexico, sheep grazers have seen their animals feed on a shrub that stays green even during a dry winter. This shrub grows wild in great abundance on rocky hillsides, and sheep and other animals freely browse on the thickly branched foliage. It is the coffee-bean-like seeds of this plant, whose botanical name is *Simmondsia Californica*, of the box family, that carry the oil.

The uniqueness of jojoba oil is a reflection of the singular architecture of its molecules. Whereas, practically all vegetable oils have a nucleus of glycerin, jojoba oil is bereft of glycerin but rich in other bodies which are somewhat related to glycerin. Then, too, the acid constituents of this oil differ from the usual types occurring in the common oils.

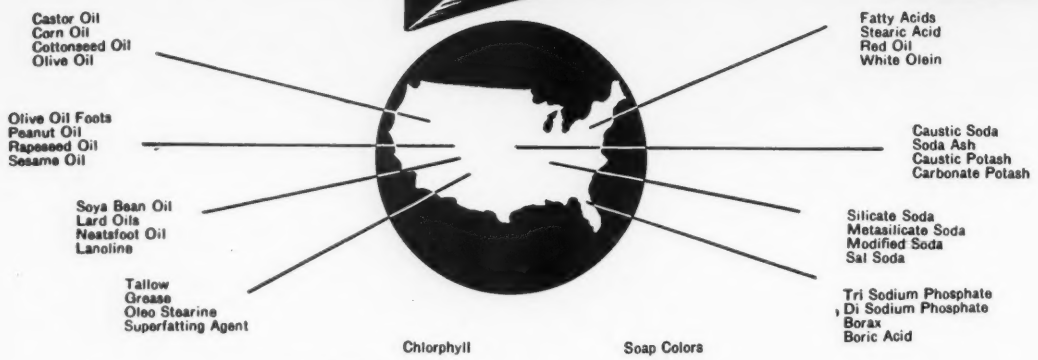
These aspects were determined from the experiments of two scientists in the United States Department of Agriculture, Dr. R. S. McKinney and Dr. G. S. Jamieson. These oil specialists, after a comprehensive investigation, reported their findings in the November 1936 issue of the trade journal, *Oil and Soap*. They concluded that jojoba was not an oil but a liquid wax. The oil closest in nature to jojoba is sperm oil.

The seed of jojoba, or goat nuts, as they are frequently called, are fairly rich in oil, containing better than 50 per cent. Ordinary cottonseed crushing equipment serves to expel the oil.

Probably the greatest promise of jojoba oil resides in its marked stability on being heated. Jojona can be heated any number of times to the relatively high temperature of 550°, and is apparently just as fresh as ever. Another favorable feature, intriguing from the lubricating angle, is that the oil shows relatively little change in its degree of fluidity on heating.

At the present time jojoba oil is not an article of commerce, but it is highly probable that it can be developed into a

RAW MATERIALS *for the* DRUG & COSMETIC INDUSTRY



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commercial product. Collection of the nuts by hand labor should be feasible, since they are easily handled, being about one-half inch long and three-eighths of an inch across. About 35 nuts make up an ounce. Quantities have been shipped to Europe from Mexico, attesting to the feasibility of handling on a commercial scale. *Domestic Commerce, Sept. 10, 1942.*

FUMIGANT

A recent development in the technique of preparing certain aerosols has completely altered the position of derris and pyrethrum as fumigants. The method, which is summarized by S. T. P. Brightwell (*Bull. Imp. Inst.*, 1942, 40, 6) is applicable to materials easily destroyed by heat. A solution (in safrol or alcohol) of pyrethrum oleoresin or of rotenone is sprayed on a hotplate when a dense aerosol is formed having a toxic action equal to the smoke produced by the simple burning of amounts of pyrethrum or rotenone powders containing twenty times as much of the insecticidal principles.

This fumigant was highly effective against houseflies and mosquitoes. No carbonization residue remained, and from the toxicity it seemed that very little of the active insecticidal constituents were lost during the dispersion. Mixtures of pyrethrum oleoresin and rotenone show toxicities greater than the sum of those due to the constituents when used singly. The rapidity with which an effective concentration of fumigant smoke is built up contributes to the increased toxicity. The results already obtained suggest that by this method the range of materials that can be used as fumigants has been much extended, embracing not only possible new substances but permitting the application of the old insecticide in new situations.

POWDER PARTICLE SIZE

Powder metallurgy, now coming into extensive use, requires that the sizes of the metallic grains, particularly the proportions of grains of different sizes that make up the powder, shall be accurately known. An instrument which does all this in 15 minutes as against eight hours previously required has been developed by Westinghouse Electric & Manufacturing Company.

A sample of the powder is shaken up in a long tube filled with acetone and the powder is then allowed to settle. The rate of settling depends on the particle size. Instead of waiting eight hours for the tube to clear, which incidentally gives no information about the powder composition, a beam of light passing through the tube is measured at intervals by an electric eye (photelectric cell). This gives the opacity of the liquid, hence the rates of settling and the powder sizes. *Science News Letter, October 10, 1942.*

IRISH MOSS

Irish moss, chondrus or carrageen, is a seaweed, indigenous to the coasts of Scotland and Ireland, which produces a mucilage valuable because of its demulcent, suspending and emulsifying properties. Decoction of chondrus is used extensively by manufacturers as an emulsifying agent, but apart from this, has been little used owing to the difficulties encountered in small scale preparation.

The decoction is preserved according to its subsequent use by adding either 1 fl. oz. of emulsion of chloroform or fifteen grains of sodium benzoate to each pint of liquid. The product has a pale straw color and contains in suspension small visible particles of cellular tissue, which, however, do not impair any of the subsequently described preparations. A better preparation, clearer than tragacanth or cellulose derivative mucilages is obtained by passage through a homogenizer.

The decoction has been satisfactorily used in all the following formulas. The preservative employed is indicated by "C.P." for chloroform and "S.B.P." for sodium benzoate. The use of the sodium benzoate preserved preparation is contingent upon a reasonable consumption and time of storage.

Syrup Substitute

Saccharin soluble	0.5 grain
Dec. Chrondrus Crisp (C.P.) to	1 fl. oz.

Difficulties, if encountered, by other constituents forming ropy particles when added to mixtures containing this product, are obviated by diluting the other constituents before finally adding the substitute.

Liquid Paraffin Emulsion

Liquid paraffin	5 fl. oz.
Sodium benzoate	43¾ grains
Vanillin	¼ grain
Chloroform	5 minims
Soluble saccharin 550	1½ grains
Dec. Chondrus Crisp. (C. P.)	12 fl. oz.
Water	to 1 fl. oz.

It is preferable in this and the next preparation to use a decoction which has first been passed through an emulsifier, and an emulsifier must also be used for the emulsification of the paraffin preparation.

Cod-Liver Oil Emulsion

Cod-liver oil	10 fl. oz.
Oil of bitter almonds	10 minims
Soluble saccharin 550	1 grain
Chloroform	20 minims
Dec. Chondrus Crisp. (S.B.P.)	to 20 fl. oz.

Prepare by passing through an emulsifier. It has been found that sodium benzoate is essential for the production of a more stable emulsion. Also it is noted that the amount of decoction used may be varied according to the efficiency of the emusifier employed.

In addition, it has been found that an equal volume of decoction replacing mucilage of tragacanth in emulsion of chloroform forms a better emulsion. The decoction is also a good suspending agent for such substances as aspirin, guaiacum, chalk and sulphapyridine. This is by no means an exhaustive list of the uses for which decoction of Irish moss can be employed, but it is sufficient to show the valuable place which it can occupy in pharmacy during the war, when severe limitations are placed upon the importation of other products. *W. T. Wing, Pharm. J.*

LIPSTICK ANALYSIS

A list, compiled from trade publication, formularies, textbooks and patents, is given of the chief materials used in modern lipsticks, classified as: waxes (stiffening agents), oils and fats (binding, spreading and cutting agents), coloring agents (bromo acids, toners, mineral pigments), penetrating agents (soothing agents or emollients), dispersing agents (bromo acid solvents), binders, preservatives, fillers, perfumes and flavors and miscellaneous, together with the approximate percentage range in which they are used. The melting-point ranges of bases used in lipsticks are tabulated. A diagram is presented of a rather extensive scheme of separation which may be used for lipstick analysis, and methods are given for: preparation of sample, determination of water and volatile matter (drying 2 hrs. at 100° C.), separation of total bases, determination of oil-soluble dyes, unsaponifiable residue, bromo acids, other coal-tar dyes (toners), lakes, mineral pigments, heavy metals, steam-volatile matter, butyl stearate, castor oil, lanolin and rancidity. *E. M. Hoshall, J. Assoc. Official Agr. Chem., vol. 24, p. 879.*

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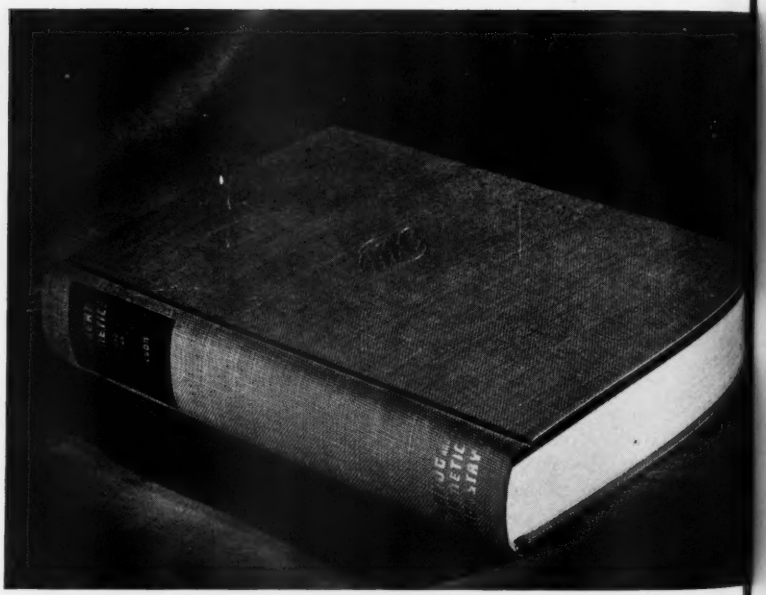

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RUSSIAN PERFUME RESEARCH

Nonyl alcohol has been prepared by Nametkin and Shagalova in exceptionally high yield by hydrogenation of the bisulfite compound of nonyl aldehyde in presence of a pyrophoric nickel catalyst in alcohol for four to five hours at 55°. The well-known method of Darzen for synthesis of methyl nonyl acetaldehyde (involving condensation of methyl nonyl ketone with ethyl chloroacetate in presence of sodium ethylate) has been modified by Bryusova and Ogorodnikova, who used sodium iso-amoxide in place of the ethylate without any reduction in yield. (The iso-amoxide is readily prepared by heating isoamyl alcohol with sodium hydroxide.) Methyl nonyl ketone itself has been obtained by Smolyaninova in 40% yield by passing a mixture of capric and acetic acids (1:1.5-2) over manganese oxide at 420-450°. Incidentally, a cheap source of capric acid for this and many other syntheses is reported to be the vat residue of fusel oil. Using the Sabatier technique, Shorygin and Osipova report a 70% yield of decyl aldehyde on reducing capric acid. What promises to serve as a useful natural source of the same aldehyde is coriander oil from the green parts of the plant (in preference to the seed oil), a method for extraction having been developed by Bryusova and co-workers.

Pyrolysis of methyl ricinoleate to heptaldehyde has been investigated by Nametkin and Shagalova, who treated the ester in an electrically heated copper tube at 550° and 300 mm. and then effected complete separation of the aldehyde from other reaction products by steam distillation. The same workers synthesized jasmin aldehyde (alpha-amyl cinnamic aldehyde) in good yield by condensing a 1:5 mixture of heptaldehyde and benzene in aqueous alkaline alcohol.

Crude linalool from Russian coriander oil (with a linalool content of up to 60%) was convertible into linalyl acetate in good yield by Kizber and co-workers, who performed the esterification with acetic anhydride in presence of a trace of the complex formed from sulfuric (or phosphoric) acid and acetic acid. Linalool from the same source has been oxidized to citral with potassium dichromate or chormic acid (Isagulyanto and Smolyaninova), while the resulting crude product may be directly used without purification, according to Mametski and co-workers, in the synthesis of ionone and methyl ionone by condensation with methyl ethyl ketone.

Ketonic compounds with large carbon rings possessing musk and civet odors were first prepared by Ruzicka in 1925 by pyrolysis of the thorium salts of long-chain dibasic acids. It is therefore particularly interesting to read that Shorygin and Smolyaninova now claim to have obtained new high-molecular compounds with musk odor by partial depolymerization of polymers of ethylene glycol sebacate or diethylene glycol sebacate. Their method involves treatment with stannous or magnesium chloride at 275°, but precise details are, unfortunately, not to hand.

With the object of studying the perfumery possibilities of the alpha-alkyl butyrolactones, Bryusova introduced alkyl groups into malonic ester, saponified the substituted esters with potash to obtain the hydroxy dicarboxylic acids, and finally split off carbon dioxide and water in vacuum to form the lactones. Compounds with attractive odors are isomyl-, isobutyl-, and octyl-butyrolactones; compounds now prepared and characterized for the first time are isobutyl- and methyl heptyl-butyrolactones.

In an improved method for technical production of musk ambrette developed by Shorygin and Simanovskaya the tertiary butyl group is introduced into *m*-cresol methyl ether by condensation with isobutylene in presence of aluminum chloride. The yield of fraction melting at 16-19° is 55% on the basis of the *m*-cresol methyl ether. Nitration of the butyl derivative with nitric acid acetic anhydride yields a mixture of musk ambrette and other nitrated bodies, purification being effected by procedures applying either selective solution or extraction with aviation gasoline.

MEDICINE FLAVORING

A satisfactory method for the comparison of the taste-disguising properties of pharmaceutical vehicles has been devised. This method is dependent upon the threshold of taste and the application of statistical methods for the evaluation of results.

The relative worth of 19 vehicles of the United States Pharmacopoeia and National Formulary as agents to disguise the tastes of ammonium chloride and quinine hydrochloride has been established. Of these vehicles, the syrups of glycyrrhiza, raspberry, orange flowers, citric acid and tolu balsam afford the best disguises for ammonium chloride, whereas N. F. VI syrup of prepared cacao, syrup of glycyrrhiza, N. F. V syrup of cocoa and aromatic syrup of eriodictyon are the best to disguise the taste of quinine hydrochloride. *W. A. Purdum, J. Am. Pharm. Assoc.*

LUBRICATING JELLY

To surmount difficulties due to the shortage of glycerin, Dr. E. MacKenzie (*Canad. Pharm. J.*, 1942, 75, 380) has devised a formula for a lubricating jelly in which the essential properties are supplied by starch and sodium lactate. The following is the formula:

Starch	7 oz. 135 grs.
Distilled water	1 gallon
Sodium lactate (60 per cent)	90 fl. oz.
Mercury oxycyanide	280 grains

Dissolve the mercury oxycyanide in part of the water, using the remainder to form a smooth paste with the starch. Mix these two portions with the sodium lactate and heat to 100° C. until a translucent jelly is formed. Transfer to suitable containers and sterilize by heating in an autoclave at 10 lb. pressure for 30 minutes.

BULGARIAN ROSE OIL

Of Bulgarian chemical production, rose oil is of great importance. Bulgarian rose essence, distilled largely under State control, in recent years is reported to have supplied 80 per cent of the world's annual consumption of 3,000 kilograms. German nutrition experts are organizing Bulgarian collection of wild-rose hips for extracting vitamin C. A modern drying plant was completed near Sofia in 1941.

Seasickness

(*Continued from page 529*)

depressant action on the cardiac muscles and vasomotor center, a combination of this drug with sodium bromide was found effective by the doctor of the *Aquatania*.[3]

Chloretone, which acts similarly to chloral, is also very frequently employed in treating seasickness because of its combined sedative and anti-emetic action. Employed as a gastric sedative to allay stomach irritation, chloretone does not depress the circulation or irritate as does chloral.[10] It is dispensed in powders, cachets or capsules. Blackham[3] reports that its effect may be enhanced by the addition of benzocaine (anaesthesin).

The barbiturates, especially phenobarbital, are likewise used for the prophylaxis and therapy of seasickness. Sargent[10] suggests the use of sodium amytal for securing the much needed sleep. Suppositories of sodium phenobarbital have also been suggested.[16] A combination of a barbiturate with belladonna may prove beneficial.[13]

Drugs of the atropine series, which act as depressants to the parasympathetic nervous system, are drugs which definitely require supervised administration. Since many of the symptoms of seasickness are explainable by the abnormal excitation spilling over into the vagi, paralyzing the vagus nerve endings is attempted with drugs of this series. Oral administration is preferred, but hypodermic injections are sometimes necessary. Some consider atropine as the most effective remedy for seasickness. It paralyzes the parasympathetic nerves and thereby prevents the reflex action from the vestibule of the ear which is started and maintained by the unusual ship's movements.[2] Ephedrine and epinephrine are used in conjunction with this drug. However, from the literature, it seems that some preparation of belladonna is generally prescribed more frequently. Scopolamine hydrobromide is also recommended.[8, 16]

The use of benzedrine (amphetamine N.N.R.) is fairly recent, but Hill's[17] work indicates that it has marked possibilities of usefulness in certain cases of seasickness in which there are signs of excessive vagus activity. He feels that it may well be employed as a useful ally to provide a greater and more lasting effect when combined with other remedies. However, benzedrine must be used with care and it is contraindicated in patients suffering from insomnia, abnormally high blood pressure (hyperpiesia), heart trouble, gastric or intestinal atony, and also in excitable persons.[3] Because its effect in producing sleeplessness, the concurrent use of a sedative may be necessary.[7] Sedatives are also useful to combat overdosage.

Benzedrine inhalers were tried by Sargent,[10] but he found them to be of doubtful value to increase blood pressure and relieve the congested heavy feeling in the nose, eyes and forehead.

Good results in the treatment of seasickness are claimed by Poch[18] by the intramuscular injection of a solution consisting of 1.25 Gm. of magnesium sulfate, 0.05 Gm. of caffeine and 0.25 mg. of atropine. Given at intervals of twelve hours, the symptoms were greatly diminished within the first four hours after the first injection and generally controlled by the second injection. In a few instances where the nausea persisted, it was controlled by a third injection. There were no recurrences, but the injections did produce a moderate amount of pain which lasted for several hours.

Aside from the possible toxic effects of the drugs found useful in treating seasickness, it is quite obvious that any drug which will reduce efficiency by sedation, dilatation of the pupils (an effect of the atropine drugs) or other action is not valuable in war.[1] Soldier-passengers may perhaps be treated, but the active personnel is another matter.

The foregoing helps to explain why a specific remedy for seasickness has never been developed. However, there can be no question but that a safe, effective product is sorely needed for prevention or treatment, or both.

BIBLIOGRAPHY

1. McEachern, D., Morton, G. & Lehman, P.: War Med. 2:410, 1942.
2. Brooks, M.: U. S. Naval Med. Bull. 37:469, 1939.
3. Blackham, R. J.: Brit. Med. J. 2:163, 1939.
4. Maitland, T. G.: Practitioner 133:146, 1934.
5. Hill, J.: Brit. Med. J. 2:802, 1936.
6. Poppen, J. R.: U. S. Naval Med. Bull. 37:463, 1939.
7. Barr, D. P.: "Modern Medical Therapy in General Practice," Baltimore, Williams & Wilkins, 1940, pp. 1122-4.
8. Desnoes, P. H.: J.A.M.A. 86:319, 1926.
9. Maitland, T. G.: J. Laryngol. & Otol. 53:134, 1938.
10. Sargent, W. S.: U. S. Naval Med. Bull. 37:480, 1939.
11. Bennett, R. A.: Brit. Med. J. 1:752, 1928.
12. Zorab, W. G.: Guy's Hosp. Gaz. 53:116, 1939.
13. Queries & Minor Notes: J.A.M.A. 110:149, 1938.
14. Elder, A. V.: in "Modern Treatment in General Practice (Wakeley, C.P.G. ed.) Vol. I, Baltimore, William Wood, 1934, pp. 172-7.
15. Hare, H. A.: "Textbook of Practical Therapeutics," Ed. 21, Philadelphia, Lea & Febiger, 1930, pp. 163-4.
16. "Merck Manual of Therapeutics," Ed. 7, Rahway, Merck, 1940, pp. 1064-8.
17. Hill, J.: Brit. Med. J. 2:1109, 1937.
18. Poch, J. M.: Dia Med. 13:798. 1941 (through J.A.M.A. 118:1258, 1942).

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Every scrap of information about that substance of such remarkable promise, penicillin, is collected by all interested in chemotherapy. The latest report actually raises still higher the hopes which penicillin has aroused.

Synthesis is still a distant possibility, and the chemical structure of the penicillin molecule remains to be established. But a long stride has been taken by the much greater degree of purification of the substance produced from the mould *Penicillium notatum*. The workers responsible for this advance are E. P. Abraham and E. Chain, who report on it in the *Journal of Experimental Pathology* (1942, 23, p. 103). The antibacterial activity of the purified penicillin they have produced is astonishingly greater than that of the first penicillin preparation produced by Fleming—and that was remarkable enough. Complete inhibition of the growth of staphylococci was achieved by Abraham's and Chain's preparation in a dilution of 1:25,000,000!

As the *Lancet* points out (1942, 6207, p. 190), these workers have still not obtained penicillin in a crystalline form, and it is therefore not certain that the highest possible degree of purity has been obtained. And there are still higher planes of anti-bacterial potency among the fungi and bacteria which remain to be explored. The *Lancet's* comment contains this paragraph, which opens up some of the vistas before the chemotherapeutic research worker: "Purified penicillin is a chemotherapeutic agent even more remarkable than the studies of the partially purified product foreshadowed. It is almost equally active against many Gram-positive organisms. It is many hundred times as active as the sulfonamides and at the same time less toxic than the least toxic of those drugs. Its anti-bacterial activity is not affected by tissue constituents, or within wide limits by the number of bacteria present. It has been shown to be active against sulfonamide-resistant streptococci, a property which promises to be of great value. Lately a number of anti-bacterial substances of various chemical constitutions have been isolated from fungi and bacteria (gramicidin and tyrocidin, actinomycin, citrinin, penicillic acid, streptothricin, gliotoxin, proactinomycin). The available evidence suggests that these substances will prove to be many times more toxic than penicillin, and it remains to be seen whether any of them will stand the test as clinical chemotherapeutic agents." *Manufacturing Chemist.*

GREY-HAIR VITAMINS

Dr. Pfaltz tested five "B" vitamins separately and in various combinations on young rats. The five were B_1 (aneurin or thiamin), B_2 (riboflavin), B_6 (pyridoxine), nicotinic acid (niacin) and pantothenic acid, as well as choline, biotin (growth factor), inositol (anti-baldness factor) and paba. It turned out that vitamins B_1, B_2, B_6 and calcium pantothenate stimulated growth markedly. The other substances had no corresponding influence, though they did improve general health.

When B_1 was left out of the diet the rats developed polyneuritis, a nervous affliction to which alcoholics are subject, not because they drink alcohol to excess but because they don't eat enough food of the right kind. When riboflavin (B_2) was left out of the diet the rats lost weight and their hair and skin became unhealthy. A deficiency of B_6 was also followed by polyneuritis. Omission of pantothenic acid led to bleeding of the adrenals and of the nasal lining. In addition the hair of black-furred rats turned gray. When pantothenic acid was restored the hair turned partially back to its original color. The effect was much more marked when paba was added to pantothenic acid. So with inositol and vitamin E.

It is plain enough from all this that no one vitamin prevents hair from turning gray or the body from growing. The "B" vitamins seem to supplement and reinforce one another.

VITAMINS IN VOMITING

Eighty-one women suffering from hyperemesis of pregnancy obtained almost complete relief from nausea and vomiting by the administration of vitamins B_1 and B_2 in varying doses at irregular intervals. Willis and his associates gave the vitamins intramuscularly or intravenously. Relief occurred more often and more completely with the use of vitamin B_6. Many patients returned for injections only when symptoms reappeared. There were no undesirable reactions. Two patients were also relieved of an accompanying migraine. The effect of this vitamin on vomiting due to other drugs, morphine and sulfanilamide, should be investigated. *Am. J. Obst. and Gyne. vol. 44, p. 265.*

COMMON COLD VACCINE

The National Drug Company of Philadelphia announces the introduction of Common Cold Vatox, a combination of vaccines and toxoids for the prophylaxis and treatment of the Common Cold. According to the Research

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VITAMIN A PRECURSOR

Discovery of a new parent chemical for vitamin A which will double the amount of the vitamin that can be obtained from whale and probably other fish liver oils was announced at the meeting of the American Chemical Society by Dr. Norris D. Embree and Edgar M. Shantz, of the laboratories of Distillation Products, Inc. Whale liver oil contains a chemical, named kitol, which can be turned into vitamin A in the laboratory by simply heating the oil to 500 degrees Fahrenheit. The kitol of whale liver oil has hitherto been discarded as an impurity when vitamins A was extracted from the oil. Its ability to become vitamin A was not suspected because animals can not convert kitol into vitamin A as they convert the green and yellow coloring matter of plants into the vitamin. On the other hand, carotene or the other vitamin A parent chemicals have not been converted into the vitamin in the laboratory. Kitol occurs most plentifully in whale liver oil but is also found in all other liver oils except those of certain fresh-water fish.

VITAMIN-RICH OILS

The Servicio Oceanografico y Pesca, after making a complete survey reports that many of the fish caught off the coast have livers with a very high vitamin content.

Whereas cod-liver oil is required to have at least 800 units of vitamin A per gram to meet the international standards for this product, some of the fish found in the waters off Uruguay reportedly produce an oil with much greater vitamin A content.

The livers of the pescadilla, or hake, average 18,000 units per gram, that of the corvina yield 26,000 units of vitamin A per gram, while the livers of the bagre average from 90,000 to 100,000 units per gram.

A plant to prepare this fish-liver oil on a commercial scale is now nearing completion near Montevideo.

Of the many varieties of fish found in these waters, the following yield the highest percentages of liver oil: shark, dogfish, pezgallo, brotula, flounder, corvina, gumbar, pescadilla, lenguado.

ETHINYL ESTRADIOL

Watson gave ethinyl estradiol orally to 18 women with menopausal symptoms. All patients were under treatment for two or more months and 1 for thirteen months. A toxic reaction, an urticarial rash, occurred in only 1 patient after taking only a small amount of the drug. This patient had had the same reaction to diethylstilbestrol. Such a reaction might be a functional manifestation of a neurotic type. Relatively small doses of the ethinyl estradiol alleviated symptoms of the menopause, and uniformly good results were obtained. *J. Clin. Endocrinology, vol. 2, p. 447.*

LAXATIVE

On ingestion of laxatives exerting their action mainly in or on the large intestine, they are partly resorbed in the stomach and the small intestine, which causes a considerable loss of the active substance. This holds for phenolic laxatives of vegetable origin—*e.g.*, extracts of senna, rheum, cascara and aloe—as well as for synthetic compounds, such as those derived from anthraquinone, such as 1.8 dihydroxy anthraquinones, phenolphthalein, etc.

The object of British patent 530,455, assigned to a Dutch pharmaceutical concern, is to provide a laxative substance in adsorbed condition, and since the stomach has an acid reaction it is considered that the adsorbates should be produced from an acid solution, to avoid elution in the stomach. Adsorption charcoal has been tested most intensively as an adsorbate owing to its harmlessness to the organism, but fuller's earth, frankonite and aluminum oxide are also mentioned. In the preparation of the adsorbates the solutions containing the active laxative principles are adjusted to a weakly acid reaction and thereupon treated with the adsorbate. The treatment may consist in filtering the solution through a layer or column of the adsorbate, or in shaking the adsorbate with the solution for some time.

VITAMIN C PRESERVATION

Rose hips collected last autumn in Hertfordshire had the largest vitamin C content, report Ovaltine Research Laboratories, when collected in the middle of November—namely, 400 mg. per 100 grams. During the previous weeks the vitamin C value was slightly lower, and by early December it had declined to two-thirds of the maximum. Moreover, the vitamin C content declines as soon as the hips are collected, and drying is not satisfactory. When the rose hips are dried *in vacuo* (for 8 hours at 50° C.) or minced before drying, 10 per cent of the vitamin C is lost. Loss during manufacture can be avoided by heat treatment as soon as possible after collection to destroy the oxidizing enzymes, followed by preparation *in vacuo* of an extract stabilized by mixing with a high concentration of sugar and storing at a low temperature. There is a gradual loss of vitamin C in the interval between preparation and use. This may amount to as much as 50 per cent in the case of rose hip syrup kept until spring. It can be retarded, though not entirely prevented, by storing the syrup in nitrogen-filled containers.

COLD CREAM ANALYSIS

Composition is given for typical cold and vanishing creams to serve as an aid in analysis. Qualitative tests are offered for the determination of the type of emulsion, the identity of the emulsifier and for the preservative. Quantitative tests for the components parts of cosmetic creams are proposed; these tests include nonvolatile matter, ash, borates, water and chloroform-soluble material. A typical cold cream was prepared, and the above quantitative determinations were made, giving good recoveries in all cases. Procedures are given for the analysis of the base of cosmetic creams involving the partial separation of mineral oil from beeswax and spermaceti, and beeswax from mineral oil and spermaceti. Procedures are also given for the identification of mineral oil, beeswax and spermaceti when occurring together. These procedures permit a quantitative determination of the mineral oil and a semi-quantitative determination of the two waxes. The identification of these ingredients depends on the quantitative separation involving the isolation of fatty acids of high and low molecular weights, hydrocarbons and fatty alcohols of high and low molecular weight. Quantitative results obtained on a prepared cream for mineral oil are good, and satisfactory semi-quantitative results for beeswax and for spermaceti indicate that the method is reliable for the identification of these two substances. Physical and chemical properties are given for beeswax, spermaceti and the various derived fractions of each to aid in the identification of these waxes. *Charles F. Bruening. J. Assoc. Official Agr. Chem., vol. 24, p. 889*

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READERS' QUESTIONS

BLACK CREAM: We have received a request for samples of a black cream to cover the face and eyelids, the cream to be non-irritating, easily applied, and displaying good adhesion in the presence of perspiration. A similar product is also requested for use on teeth and gums. Memphis.

Your "Commando" cream can readily be made by incorporating carbon black in petrolatum or a similar material to produce a soft ointment. The petrolatum itself must be modified since it has an undesirable luster and a small amount of cetyl alcohol may accomplish this purpose. Or the use of a hydrogenated fat plus a vegetable oil as the base may be reasonably free from shine. Products of this type of course are highly resistant to perspiration. A black coating for the teeth and gums is a much more difficult problem and the best solution is the use of a nitro-cellulose or other water insoluble lacquer, pigmented with carbon black. Teeth and gums must be completely dry before these lacquers are applied and a special remover must be used.

MOUTH WASH LABELLING: We manufacture a product, a label herewith enclosed, and are interested in knowing if this would be classified as a mouth wash or a dentifrice and if, in the cosmetic General Limitation Order L-171, it would be classed with the No. 1 list or the No. 2? Also, would you advise our changing the labels and cartons, to read just mouth wash, which is off the cosmetic list? Can you give us any advice on this matter? Hollywood.

The advice given, namely, to change the label to read mouth wash only, is quite sound and would put your product in the category of drugs and not cosmetics, and therefore outside the scope of the general limitation order. At present, however, as you well know, the whole problem has become academic since the general limitation order has now been rescinded. All you have to do is try to get raw materials.

CHLORAL HYDRATE HAIR LOTION: Recently there has come to my attention a hair dressing which contains chloral hydrate, alcohol and Colocynth Extract. This product is intended to stimulate growth of hair and I am wondering if you can explain to me the principle of action of chloral hydrate. Portland.

The chloral hydrate in the lotion as well as the Colocynth extract are both irritants and on this property is based the belief that they will stimulate the growth of hair. Other irritants such as pilocarpin and even extreme dilutions of mustard gas have been suggested for the same purpose. Local irritation is supposed to stimulate the flow of blood through the capillaries of the scalp and thus provide better nourishment for the hair and stimulate its growth. This may actually be true in some cases.

MAKE-UP BASE: In your April issue there was an interesting article on Tinted Powder Bases. We wonder whether you would be good enough to send us a formula for the current popular pancake make-up or some data on this product. St. Louis.

The make-up product that you wish to manufacture can be made like any rouge or powder cake by pressing the appropriate tinted powder along with a dilute gum binder into cake form. It is usually better to treat the powder previously in some way to make the individual grains waterproof. Incidentally, "Pan-Cake Make-up" is a registered trade name and Max Factor has the exclusive right to the use of that name or designation in connection with such a product. This company considers reference to any other cosmetic or to a type of cosmetics generally as "Pan-Cake" make-up, as an unauthorized violation of its rights. In addition to the registration of the name as a trade-mark, the product itself is patented under U. S. Patents Number 2034697 and 2101843, and infringements of these patents will get you into trouble.

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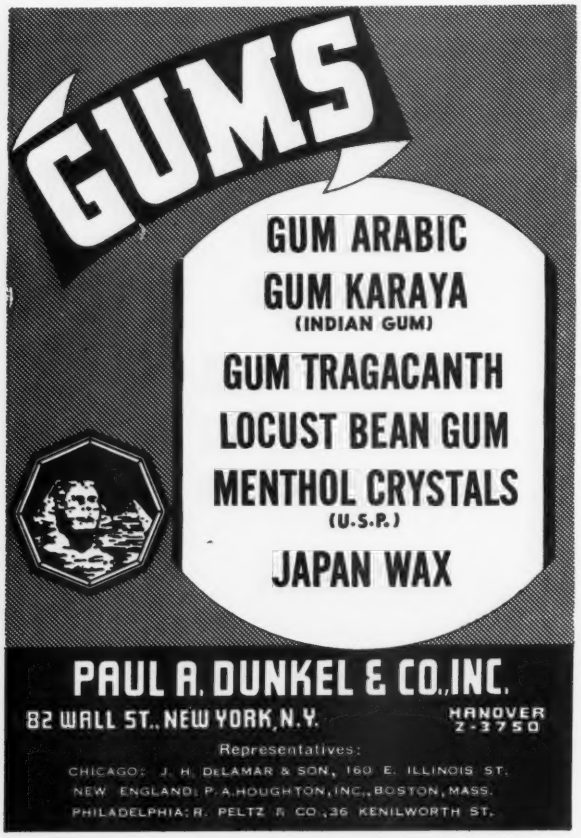

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COSMETIC STOCKINGS: We would greatly appreciate your giving us some information on suitable wetting agents for use in cosmetic stockings, both in the aqueous dye type and the liquid powder type. The wetting agents we have tried result in excessive foaming which presents a filling problem. Is there any way this foaming may be reduced or eliminated other than by introducing relatively large amounts of alcohol into the formula? Toledo.

Wetting agents are active because they reduce the surface tension of water and thereby promote penetration or wetting. Reduction of surface tension also promotes foam formation. It is thus evident that the use of wetting agents must necessarily be accompanied by foaming. On the other hand, sulfonated oils, which do not foam, were successfully used as penetrating agents in dyeing before synthetic detergents were invented. You might, therefore, try the use of sulfonated oils in your preparations.

AMMONIA PERMANENT WAVE SOLUTION: The new order freezing all ammonias for hair waving lotions has placed this industry in a precarious position, since ammonia is one of the necessary ingredients for making permanent waving solutions. However we notice that some manufacturers are putting on the market hair wavings lotions that they claim are ammonia-less. Would you please advise us if you have any information regarding the making of permanent waving solution without ammonia? Tulsa.

Nitric acid, which is necessary in the production of all explosives, is made by the catalytic oxidation of ammonia. Limited ammonia supplies left after this conversion must then be distributed among many industries, some of which at least are more important to the war effort and necessary civilian production than permanent wave solutions. Permanent wave manufacturers will have to get used to the idea of having less ammonia available for the manufacture of their solutions. For several years solutions not containing free ammonia have been produced. These can be made by the use of combinations of alkali to give the same effect as ammonia or by the use of ammonium salts which liberate ammonia in solution. As an example, 53 parts of ammonium chloride and 53 parts of sodium carbonate dissolved in 1000 parts of water will give 58.5 parts of sodium chloride and 49 parts of ammonium carbonate, adequate for most permanent wave uses. The same amount of ammonium chloride can be combined with 63 parts of sodium sulfite to give 58 parts of ammonium sulfite in solution. In short, formulas can readily be revised, using ammonium salts instead of ammonia to get substantially the same, or even better, permanent waving effect.

TRIETHANOLAMINE SUBSTITUTE: We have been using triethanolamine for hair lacquer, shaving cream, cleansing cream, etc., but are now finding it virtually impossible to obtain this material. Will you please advise us as to a suitable substitute? Chicago.

Other organic bases that could be used as complete substitutes for triethanolamine are just as difficult to obtain. However, the use of potassium hydroxide in the proportion of 2 parts of potassium hydroxide in place of 5 parts of triethanolamine should give you very similar products.

LIQUID SHAMPOO: We have been trying to make a liquid shampoo from soap bars supposed to be made from palm and olive oils. We wish to obtain a heavy body shampoo that is clear; we have tried a cold process and the use of heat but in every case we get a cloudy mixture which gets thick on standing. We understand that any product of this type can be made into a 20 or 30 per cent. soap shampoo and would very much appreciate hearing from you as to what we should do. Rochester.

Unless the bar soap that you are working with is specially made to be dissolved in water to make a liquid shampoo, you probably will not be able to get good results. Cake soaps are made with sodium hydroxide and are not specially soluble in water. To obtain a soluble soap, potassium hydroxide must be used. However, you may be able to improve your product considerably by adding about 10 per cent. of alcohol to increase the solubility of the soap. It is also advisable to chill the finished solution and then filter while cold to remove the cloudy residue.

HAND LOTION: I would appreciate the following formulas if you can supply them. A white hand lotion, easily made and stable, with good body. A cola or cola and coca extract to make a fountain syrup. Trenton.

A good hand lotion can be made by following this formula:

Stearic acid	2.0
Cetyl alcohol	0.5
Triethanolamine	0.5
Glycerin	10.0
Quince seed	1.0
Karaya gum	0.2
Preservative	0.1
Water	85.7

The quince seed is allowed to stand with half of the water and the preservative overnight and the mucilage filtered through cheesecloth. The karaya is mixed with the glycerin and then poured into the quince mucilage. Stearic acid and cetyl alcohol are then melted together and poured into triethanolamine, dissolved in the rest of the water and heated to 60° C. Stir until completely homogenized and then add the gum solution. Stir until uniform.

We have no information on cola flavoring extract.

HAIR PREPARATIONS: I have prepared a brilliantine based on castor oil and alcohol, but have had great difficulty in covering the odor of the castor oil. Is there any fixative or special procedure that will enable me to cover this odor. Please suggest a formula for a hair tonic containing ethyl alcohol, castor oil, zinc sulfocarbolate, benzyl benzoate and water. Guatemala.

A skilled perfumer might be able to suggest a perfume mixture to cover the odor of castor oil. It is probably far more satisfactory, however, to use a special, deodorized grade of the oil. Your hair tonic can be made of one part of zinc sulfocarbolate, 2 parts of benzyl benzoate, ten parts of castor oil, dissolved in 82 parts of alcohol. Add not more than 5 parts of water.

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PURCHASING DEPARTMENT

OCTOBER MOVEMENTS

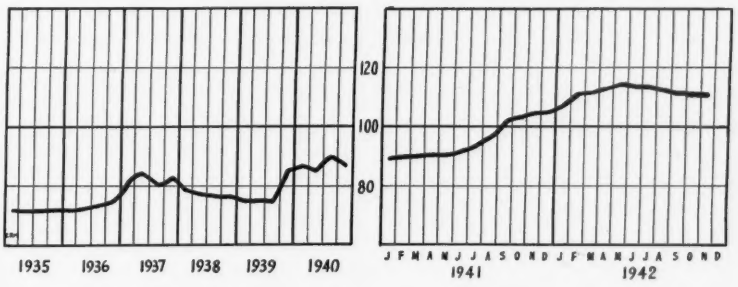
Up

Aloes, Curacao 7c	Cardamom oil $5	Rosemary oil 25c
Balsam Peru 5c	Lanolin 1c	Spruce oil 10c
Cade oil 5c	Mastic gum 50c	

Down

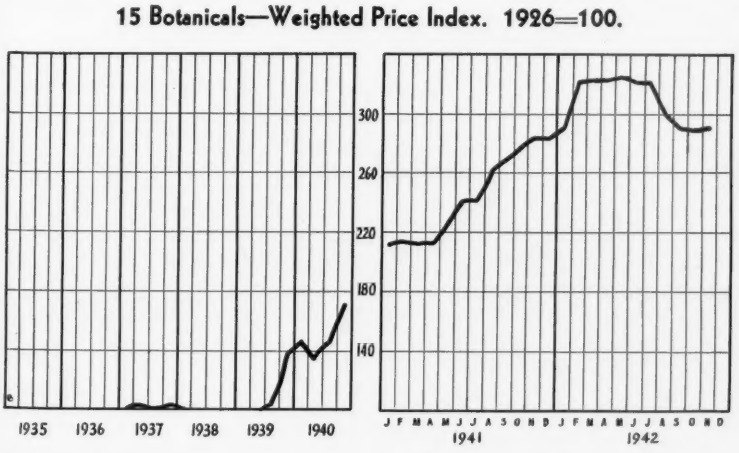
Angostura bark 2c	Heliotropin $2.50	Saffron American 3c
Anise oil 20c	Horehound herb 1c	Valencia $1.50
Arabic gum sorts 1½c	Irish moss 11c	Sarsaparilla root Mex. 2c
Arnica flowers 15c	Kamala 5c	Sassafras bark 1c
Cedar wood oil 5c	Lemon grass oil 15c	Senega root 1c
Celery oil $5	Lime oil dist. 50c	Stramonium leaves 2c
Citral 50c	Expressed 50c	Valerian root 10c
Citronella oil Ceylon 15c	Oleoresin capsicum 10c	Vanilla beans Bourbon $3.50
Dandelion root 1c	Olive oil edible 25c	Mex. cuts $4.50
Digitalis leaves 5c	Petit grain oil SA 35c	Mex. Whole $5.50
Ergot 25c	Quince seed 20c	Wormseed oil 20c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index declined to 110.8 from the previous 111.1. Balsam Peru was 5 cents a pound more at $1.25 and lanolin advanced to 30 cents, but these advances were more than offset by a sharp drop of 20 cents a pound in the price of quince seed, now generally being offered at $1.50.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced to 289.6 from the previous 288.5. Aloes was up 7 cents a pound to 72 cents; arnica declined from $2.85 to $2.70; digitalis was lower at 45 cents; ergot dropped to $1.40 and rhubarb also declined to $1.20. Mixed reports are current concerning business in the botanical drug market. Low sales prices of some dealers in March have made it almost impossible for them to continue to handle certain articles under the GMPR.

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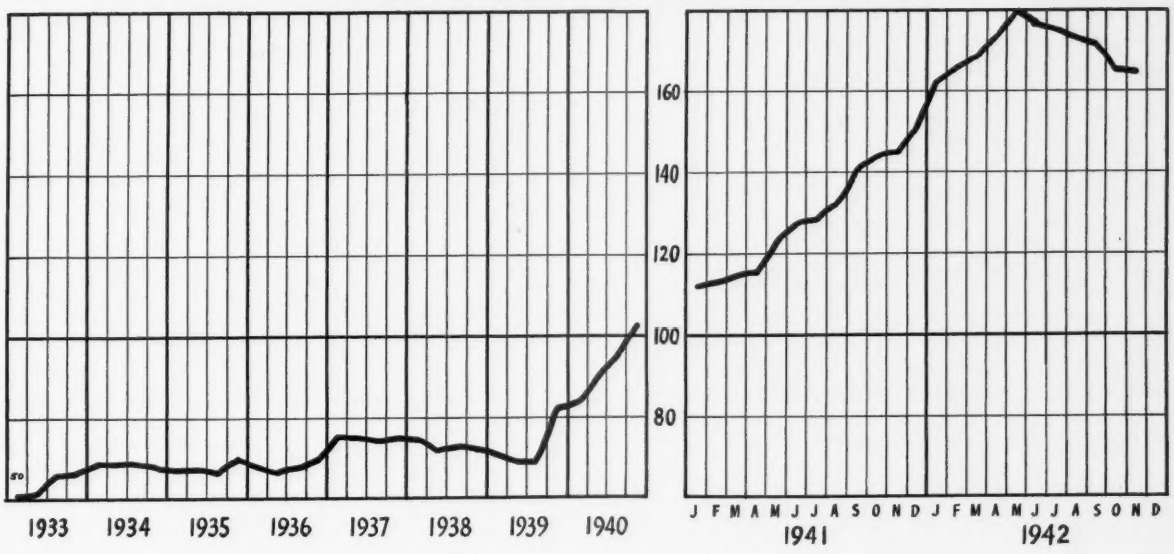
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for October, 1942 declined to 164.1 from the previous 164.6. Considerable activity continues in the fine chemicals market and there are a number of items which are extremely difficult to obtain. Citric acid which formerly required a rating of A-10 is now commanding a rating of A-5 or better. The essential oil market continued to be dull, most likely reflecting a condition which is characteristic of industries outside the war effort.

• Prices quoted in this section were current on the first of this month.

MARKET REPORT ON AROMATICS

The market situation in essential oils is a very uncertain one at the present time. This is mainly due to the lack of interest on the part of the consumers, who do not wish to make any commitments. With the advent of the establishment of price ceilings, a general feeling predominated that it would be difficult to establish higher prices. In subsequent months, or even weeks, the prices of most of the essential oils dropped in a rather irregular way; in some cases a few cents per pound, representing about ten per cent.; in other cases, such as oil of lemongrass, several dollars per pound, representing as much as eighty per cent. of the highest price on record.

In addition to that upset in the market, the government's pressure to reduce stocks and accumulated reserves down to a normal inventory increased. Of course, the term "normal inventory" is vaguely defined, particularly when shipping conditions are disrupted, as they now are. Under normal conditions, a normal inventory of lemongrass would possibly be the average amount consumed during a two month period; that is, the time required for replacement. Today, that time factor has increased to four months, and sometimes shipments arrive six months after the order has been placed. But at any rate, stocks representing more than six months' consumption would probably be considered abnormal, and a good many consumers of essential oils are now using up their inventories, working down to a safe basis, which means they will start buying again when they feel they have enough on hand to last until a new shipment can be brought in.

The almost general drop in the price of essential oils naturally upset the speculative factors in the market, and most of them feel that prices may still recede more, whereas others believe that perhaps after the beginning of next year, all surplus stocks will have been used up, and shipping conditions will make it difficult to bring in additional amounts, with the possibility, therefore, of a strengthening of the price situation.

The market in essential oils thus becomes a very nominal one. The dealers and speculators who are fearful of the future, are glad to obtain three dollars for bois de rose, for which they might have paid $4.50, whereas others hold on for better prices. The prices of any given essential oil may vary up or down within one week, or even one day, by ten or twenty per cent., according to how anxious the seller is to unload, or how anxious the buyer is to buy for his immediate needs.

Our feeling is that a good many essential oils are still too high, while others may well have reached bottom, but naturally it is very difficult to pick and choose, since no decided tendency one way or another can be observed.

Consumption, however, is going on; no doubt more rapidly than replacement, and under those conditions it is quite possible that at the beginning of next year we might see a somewhat more stabilized market situation, followed by more actual purchases in order to maintain safe inventories, but we doubt that we will ever again see lemongrass at four dollars a pound, or bois de rose at five.

The least changes which have occurred in essential oils are found among those originating in countries inaccessible to us, due to the war conditions, such as lavender and lavandin, bergamot, patchouli, citronella Java, oil

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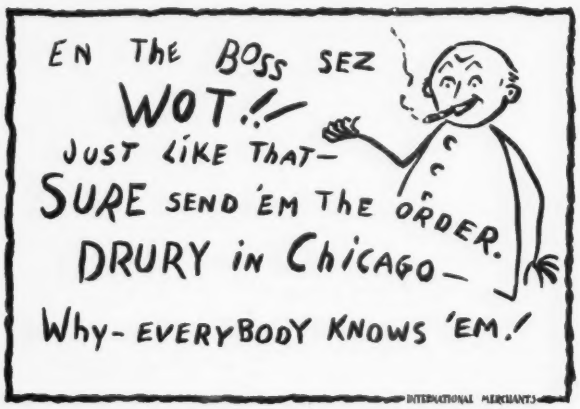

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of The Drug and Cosmetic Industry, published monthly at Pittsfield, Mass., for October 1, 1942

State of New York, County of New York—ss

Before me, a notary public in and for the State and county aforesaid, personally appeared Thomas R. Farrell, who, having been duly sworn according to law, deposes and says that he is the Editor of The Drug and Cosmetic Industry, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Drug Markets, Inc., 101 West 31 St., New York, N. Y.; Editor, Thomas R. Farrell, 101 West 31 St., New York, N. Y.; Managing Editor, Elmer Sheets, 101 West 31 St., New York, N. Y.; Business Manager, Frazer V. Sinclair, 101 West 31 St. New York, N. Y.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given.) Drug Markets, Inc., Frazer V. Sinclair, Thomas R. Farrell.

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

Thomas R. Farrell, Editor.

Sworn before me this 1st day of October, 1942, Edward N. Mueller, Notary Public.

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of origanum, eucalyptus, vetivert Java and the safrole-containing oils, but considerable stocks are available domestically of citronella Java, patchouli and vetivert Java. Also substitutes, natural and artificial, have been found for bergamot, lavender and safrole-containing oils, which are now imported in considerable quantities from Brazil.

It is gratifying to note that from Brazil increasing quantities of oil of sassafrass artificial are offered, and though the price is high, it would appear to be gradually weakening, as more and more offers appear on the market.

"The Givaudanian," Givaudan-Delawanna, Inc., Sept-Oct. '42.

NUX VOMICA

Activity in India's nux vomica market from February to July 1942 centered in the Madras area, conditions in the Calcutta district being disturbed by the threatening war situation.

Because nux vomica is strictly a jungle product, no reliable or official statistics on production are available. The normal annual pre-war export figure of about 1,500 long tons, plus 100 to 200 tons for local use, represented roughly the average yearly production. To compensate for the withdrawal of French Indo-China as a producing country, India stepped up output during the period September 1, 1941, to July 1, 1942, to about 2,200 tons, according to reports.

Stocks of nux-vomica in India are said to be relatively small, and it is estimated that new crop supplies will not be available before November or December. South Indian stocks in July amounted to about 550 or 600 tons, of which 300 were being held on the Malabar (west) coast and the remainder in the Madras-Cocanada area (east coast). Of west coast stocks, 200 tons had already been sold abroad; and 50 tons of the Madras-Cocanada stocks had been contracted for.

Large stocks are accumulating upcountry (in Bengal and Orissa) in the Calcutta area, it is believed, because of the carry-over from last year of 900 long tons (March 1942 estimate) and the presumably good crop this year. Calcutta stocks have little influence on the export situation, as overseas buyers generally prefer the South Indian product.

Demand from the United States and United Kingdom has been brisk, and shipments have kept pace with sales. Total exports from India during the months September 1, 1941, to July 1, 1942, are estimated at about 2,200 tons maximum (valued at approximately $293,480), compared with the normal pre-war export figure of about 1,500 long tons.

The principal marketing season for nux vomica is from November to February. Since stocks are held throughout the year, the marketing sometimes continues after February. The crop season begins in September, when the trees bear fruit, and continues until November, when the ripened fruit or nuts are collected and dried.

Requirements of consumer countries, it is believed, have increased steadily since the war because of increased use of strychnine—the chief alkaloid in nux vomica—in pharmaceutical preparations as a pain killer, sedative, and tonic.

MEXICO'S EXPORTS

Exports from Mexico of essential oils extracted from various fruits showed a slight gain during January to October 1941, over the same period of 1940. Amounts of linaloe shipped, however, dropped almost 50 per cent.; the value of this item, conversely, jumped about 50 per cent.

The following table summarizes the situation:

Essential-Oil Exports: Mexico

Item	1940 [1]		1941 [1]	
	Kilograms	*Pesos*	*Kilograms*	*Pesos* [2]
Essential oils (from fruits)	6,806	111,328	11,134	288,624
Linaloe	30,950	266,034	16,997	225,445
Other essential oils	88	1,219	24	512

[1] First 10 months.
[2] 4.86 pesos equal $1.00.

VITAMINS

Manufacturers announced a reduction of 4c a gram in the price of thiamin hydrochloride U.S.P. and now offer this item at the following prices: 1 kilo fiber drum 37c per gram; 5 gram bottle 40c per gram. Riboflavin was also reduced sharply and is now quoted at 65c per gram in 100 gram bottles and 68c per gram in 5 gram lots.

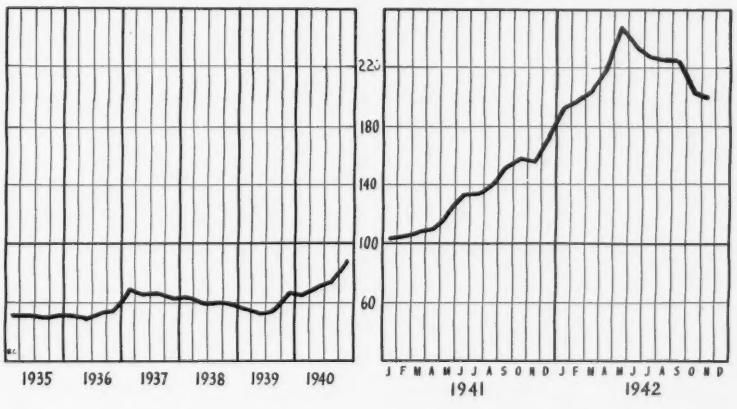
CLOVES

Demand for Zanzibar cloves was good during the past season and, with shipping available, most of the crop moved to overseas markets.

Production of Zanzibar during the year ended June 30, 1942, amounted to 10,415,254 pounds, and that on nearby Pemba to 31,134,255 pounds. Exports from the two islands aggregated 36,669,571 pounds.

In the second quarter of 1942 Zanzibar produced 386,864 and Pemba 2,155,280 pounds, exports during the period aggregated 8,404,801 pounds.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oil index declined to 200.1 from the previous 202.4. Anise was 20 cents a pound lower at $2.75; citronella oil declined from $1.25 to $1.10, and lime oil showed a sharp drop to $12.50. The market as a whole continued to show a lack of consumer interest. It was generally conceded that the advent of price ceilings had a material effect on this group of commodities.

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SULFATHIAZOLE

Manufacturers have announced a further reduction of price for sulfathiazole (2-sulfanilyl aminothiazole) not sterilized, and sulfathiazole sodium (sesquihydrate) not sterilized, and are now quoting: 100 lb. drums $4.15 per lb.; 25 lb. cans $4.30 per lb.; 5 lb. lots $4.45 per lb.

QUININE

The United States Army and Navy have purchased such large quantities of quinine, in all forms, that, until further notice, important manufacturers will be unable to accept any orders for these products, even for malarial needs. It is hoped that supplies of cinchona bark from South America or some source other than Java will eventually be available in adequate quantity, and of sufficiently high quality, to permit resumption of manufacture of quinine and other salts of cinchona.

The Sub-Committee on Scope of The United States Pharmacopoeia has designated totaquine (a mixture of alkaloids from the bark of cinchona) as the official antimalarial drug to replace quinine and other salts of cinchona. Totaquine now is official in the U.S.P. XII. Manufacturers are now offering this product for sale at the following prices: 100 oz. container 40c per oz.; 25 oz. container 43c per oz.; 5 oz. container 45c per oz. Sales are subject to regulations of Conservation Order M-131 amended June 20, 1942.

VANILLA BEANS

Specific price ceilings were established by the Office of Price Administration on all vanilla beans. The following schedules are now in effect. Bourbon beans $10 a pound; Mexican cuts $10 a pound; Mexican whole beans $11 a pound; white label Tahiti $6 a pound; yellow label $5.75 a pound; West Indian $10 a pound and Java $9.50 a pound.

Beans are available for ordinary requirements but import factors are of the opinion that the situation in general can best be served by a policy of moderation on the part of consumers and dealers.

Recent reports indicate that some government control over ice cream production can be expected in the near future. It is not likely that this control will be as drastic as first proposals would indicate, primarily because the industry is by no means a minor one, nor without some influence. It is almost certain, however, that production next year will be on a percentage basis likely to have an effect on the consumption of vanilla extract.

CITRIC ACID

Government restrictions and heavy purchases of citric acid have made it difficult for producers to supply the requirements of civilian customers. It has, therefore, been necessary to reduce the quantities that can be supplied for civilian use and, for the months of October, November and December, 1942 it is expected that allocation to such users will be on the basis of 50 per cent. of the amount that each customer purchased in the similar quarter of 1941.

Our government has been an exceptionally heavy buyer of citric acid in recent months. This is in beverage form containing some lemon juice, etc. It has proved a tasty and healthful drink and is being consumed in army camps in large quantities.

FISH LIVER OILS

The production of shark livers, rich in vitamin A, has practically quadrupled during the last 2½ years in the Mexican Pacific-coast area. Output in the consular district of Mazatian, which comprises the States of Sinaloa and Nayarit, jumped from 175,000 pounds in 1940 to 275,000 pounds in 1941, and to 385,000 pounds in the first 7 months of 1942, according to the Departamento de la Marina Nacional.

About 120,000 gallons of nonfreezing medicinal cod liver oil in St. John's, Newfoundland, is expected to be offered for shipment between September and the end of the year. There is a possibility of a further 50,000 to 100,000 gallons being available later.

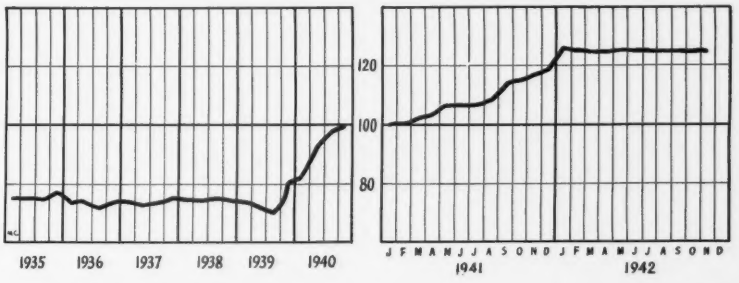
MENTHOL

The usual seasonal upturn in the demand for menthol has set in and with spot supplies of the Far Eastern product virtually exhausted, there are inquiries in the market for substantial quantities of synthetic material. Manufacturers of the synthetic product point out that they have fair quantities to sell but that they are watching every inquiry and order closely to make sure that everyone will receive a fair share.

Since synthetic menthol is made from Java citronella oil, it will only be a question of time when the supply of this material will also be exhausted, as no further imports of the crude are probable. Suppliers of the synthetic menthol state that some consumer demands are unreasonable, but with the supply of the Far Eastern product cut off, a great many buyers are endeavoring to find a substitute, now that the heavy consuming season is rapidly approaching.

A new liquid product is being produced from American peppermint oil which is said to contain 75 per cent. menthol. No firm price has been named on the article, but it is indicated that it will probably sell at around $10 per pound.

15 Medicinal Chemicals—Weighted Price Index 1926=100.



The medicinal chemicals index still failed to show a change, the index figure remaining at 124.4. This indicated a considerable price stability although demand was good and all indications pointed toward an increasing production tempo to keep pace with the consuming requirements.

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